

# **Appendix A**

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## **Scoping Summary Report**



# RECLAMATION

*Managing Water in the West*

## Scoping Summary Report

**Laguna Restoration Project  
Imperial County, California**



**U.S. Department of the Interior  
Bureau of Reclamation  
Yuma Area Office  
Yuma, Arizona**

**November 2005**

## **Mission Statements**

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

# Scoping Summary Report

## Laguna Restoration Project Imperial County, California

Delivery Order No. 05-PE-34-0117

*Prepared by:*

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*Prepared for:*



**U.S. Department of the Interior**  
**Bureau of Reclamation**  
**Yuma Area Office**  
**Yuma, Arizona**

November 2005



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# 1.0 INTRODUCTION AND BACKGROUND

The scoping report has been prepared to provide a synopsis of the scoping process that has been conducted to date for the proposed Laguna Restoration Project in Imperial County, California. This scoping report identifies efforts made to notify interested agencies, organizations, and individuals about the proposed federal action and to obtain input from those entities regarding the range of alternatives to be evaluated and the issues to be considered during the preparation of the environmental assessment (EA) being prepared by Reclamation. These efforts have been carried out pursuant to the “scoping process,” as defined by the Council on Environmental Quality’s (CEQ) regulations implementing the National Environmental Policy Act (NEPA).

This report summarizes the major points made in the public comments received during the scoping process.

## 1.1 PURPOSE AND NEED FOR THE PROPOSED ACTION

Consistent with implementation of NEPA, Reclamation is preparing an EA related to the proposed Laguna Restoration Project. The purpose of dredging above Laguna Dam is to provide increased water storage capacity to:

- Capture sluicing flows (approximately 400-500 Acre Feet) released from Imperial Dam and
- Ensure the safety of the public below Laguna Dam during sluicing operations at Imperial Dam
- Maintain the operational integrity (function ability) of Laguna Dam and
- Operate the river effectively and efficiently below Imperial Dam

Due to the lack of storage capacity above Laguna Dam and the variation in water demand at Imperial Dam, it has been difficult to perform enough sluicing operations to keep the California Sluiceway Channel clean. Operation of the California Sluiceway of the All American Canal/Imperial Dam complex requires release of a “slug” of water to wash accumulated sediments downstream to the Laguna Settling Basin. About 400-500 Acre Feet of water is released by Imperial Dam during each sluicing event. This water is retained by Laguna Dam.

To keep the California Sluiceway Channel relatively clean of sediment deposited from the All American Canal desilting basins, sluicing operations should be performed approximately two to three times a week. Presently, the storage capacity of Laguna Dam reservoir is barely sufficient to retain sluicing flows arriving from Imperial Dam. Without sufficient storage behind Laguna Dam, sluicing flows would continue downstream creating a hazard to the public and causing large fluctuations in flows arriving at Morelos Dam.

In addition to affecting the ability to store sluicing flows, sediment deposition above Laguna Dam has resulted in vegetation growth near hydraulic features, which compromise the

operational function of the reservoir and the structural integrity of the Dam. Laguna Dam is still used as a regulating structure for Laguna Reservoir. Vegetation growth upstream of the Laguna Dam gate structure's concrete outlet channel located at the California side of Laguna Dam has blocked about two thirds of the channel. Preventing the outlet channel from completely closing off will help ensure relatively stable delivery of Treaty water to Mexico.

Vegetation has also grown across a significant portion of the Laguna Dam spillway. Vegetation upstream of the spillway will both impact the structural integrity (structural deterioration) of the spillway and cause the water surface elevation to rise even further above the design water surface elevation during floods, creating a larger area of impact than would normally occur. If vegetation continues to grow across the remaining open section of the outlet channel, it would completely block flows from safely routing through the spillway when the reservoir rises during relatively modest floods.

## **1.2 SCHEDULE FOR NATIONAL ENVIRONMENTAL POLICY ACT PROCESS**

Reclamation is proceeding with the technical studies necessary to complete the analysis for the proposed action and alternatives, as revised as a result of the scoping process. Reclamation anticipates a Draft EA will be available for public review and comment in December 2005. The Draft EA will be sent to individuals and entities on the scoping mailing list as well as those individuals/entities that requested copies of the Draft EA. The Draft EA will also be available on the internet at [www.usbr.gov/lc/yuma](http://www.usbr.gov/lc/yuma).

## 2.0 SCOPING ACTIVITIES AND ISSUES

This section documents the purpose and objectives of scoping, and identifies issues that were frequently raised through the scoping process.

### 2.1 PURPOSE OF THE SCOPING PROCESS

“Scoping” is an integral part of the NEPA process. Scoping provides “an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.” (40 CFR § 1501.7)

The objectives of scoping for this federal action include the following:

- Identify significant issues related to the proposed Project;
- Determine the range of alternatives to be evaluated;
- Identify environmental review and consultation requirements;
- Define the environmental analysis process and technical studies necessary to adequately address the impacts of the proposed Project;
- Identify the interested and affected parties; and
- Provide information to the public regarding the proposed Project.

### 2.2 SCOPING ANNOUNCEMENTS

Reclamation published a news release on its website ([www.usbr.gov/lc/yuma](http://www.usbr.gov/lc/yuma)) announcing the public open house to be held to solicit input on the environmental documentation for the Laguna Restoration Project. This news release, included in Appendix A, provides information on the Project, its location, and how to provide input with and without attendance at the public open house. In addition to the news release, letters announcing the public open house were mailed to 30 interested parties, including property owners and resource agencies. The mailer and distribution list are provided in Appendix A.

### 2.3 OPEN HOUSE

Reclamation held an open house to discuss the Laguna Restoration Project and to solicit the public’s input on the upcoming environmental documentation. The open house was held Thursday, September 22, 2005 at Yuma Crossing State Historic Park, 201 North Fort Avenue, Yuma, Arizona, from 6:00 p.m. to 8:00 p.m. with a presentation about the Project from 6:30 p.m. to 7:30 p.m. During the open house, Reclamation representatives were available to provide information and respond to questions about the Laguna Restoration Project and proposed alternatives. Posters and handouts were made available to attendees detailing the proposed project and the existing site conditions in the area that would be affected by the proposed Project (e.g., land uses, habitats). Handouts and other materials from the open houses, as well as the transcript from the open house are provided in Appendix B.

## **2.4 SCOPING COMMENTS**

### **2.4.1 Number of Comments**

A total of 5 comment letters/emails were received in response to the public notices of the scoping period for the Draft EA. These comments are in addition to verbal comments received during the open house. All comment letters are attached in Appendix C, and are listed below:

- U.S. Fish and Wildlife Service, Phoenix Office, Stephen L. Spangle
- U.S. Bureau of Land Management, Aaron Curtis
- Arizona Game and Fish Department, Russell K. Engel
- Center for Biological Diversity, Michelle T. Harrington
- Yuma Rod and Gun Club, Jim Ammons

In addition, multiple persons provided informal comments at the open house. A transcript from the open house is provided in Appendix B.

Reclamation has reviewed and considered all the comments that have been received. For convenience, in the discussion below, comments have been grouped by major theme.

### **2.4.2 Issues Raised through Scoping**

#### ***2.4.2.1 Issues Related to Potential Impacts to the Lower Colorado Multi-species Conservation Program***

The U.S. Fish and Wildlife Service and Arizona Game and Fish Department wrote that the proposed project is included in the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) as a covered action. The U.S. Fish and Wildlife Service stated that the loss of marsh, honey mesquite, and cottonwood-willow riparian habitats that support the LCR MSCP covered species is mitigated through the implementation of the LCR MSCP.

The Center for Biological Diversity requested that the EA explain the implication of the LCR MSCP on the proposed project. Specifically, they requested that if the project is a covered action within the MSCP, the cross-section of allowed habitat loss, actual habitat loss (if any), and mitigation implied in the MSCP be reviewed. Also requested was that the potential impacts to endangered, threatened, or candidate species, or species of concern be evaluated.

#### ***2.4.2.2 Issues Related to Potential Impacts to Wetlands and Wildlife***

Arizona Game and Fish Department expressed concern that the project may potentially result in the loss of more than 7 acres of wetlands. In addition, they requested an analysis of potential impacts to wildlife.

#### ***2.4.2.3 Issues Related to Potential Impacts to Recreation***

The Bureau of Land Management provided input stating that the proposed project may greatly increase the existing recreational use of the project area, and that this may warrant the

installation of recreation facilities to address public health and safety and resource protection concerns. The Yuma Valley Rod and Gun Club requested that the small channel along the spillway from Laguna Dam to Betty's Kitchen and the channel from the confluence of the old river channel upstream to the existing boat ramp be re-opened.

## **APPENDIX A   OPEN HOUSE ANNOUNCEMENTS**

- **NEWS RELEASE**
- **LETTER ANNOUNCEMENT**
- **LETTER ANNOUNCEMENT MAILING LISTS**



**Yuma Area Office  
Yuma, Arizona**

Media Contact: Jack Simes, 928-343-8334, [jsimes@lc.usbr.gov](mailto:jsimes@lc.usbr.gov)

For Immediate Release: September 12, 2005

## **Open House Scheduled to Receive Comment on Environmental Assessment for Laguna Dam Restoration Project**

On Thursday, September 22, the Bureau of Reclamation will host an open house to provide information about and seek public input on an Environmental Assessment for the Laguna Restoration Project.

The open house will be from 6:00 p.m. to 8:00 p.m. in the Cocopah Conference Room at the Yuma Crossing State Historic Park, 201 North Fourth Avenue in Yuma. Reclamation staff will make a presentation on the project at 6:30 p.m. Information about the project, and about existing site conditions in the area that would be affected by it (e.g., land uses, biological and cultural resources), will also be available. Reclamation staff will be available to accept comments or answer questions throughout the meeting. The facilities are accessible to people with disabilities.

The purpose of the project is to remove more than two million cubic yards of sediment from the reservoir behind Laguna Dam. This will restore about 1100 acre-feet of water storage capacity in the reservoir, providing greater flexibility for sluicing operations at Imperial Dam. Removal of the sediment is scheduled to begin in March 2006 and last approximately 2 years.

The open house will provide an opportunity for interested parties to comment on the scope of the issues to be addressed in the EA. The EA, a National Environmental Policy Act compliance document being prepared for the project, integrates consideration of environmental values into planning and decision making. A draft EA is expected to be available for public review and comment in December.

Reclamation also will accept written comments on the scope of the EA. Comments can be mailed or faxed to Ms. Kimberly Garvey, at the Bureau of Reclamation, Yuma Area Office, 7301 Calle Agua Salada, Yuma, AZ 85364; or at 928-343-8320, respectively. Comments must be received by October 21, 2005. (Si deca atender la junta y necesita un interprete en Español, por favor llame a Sr. Sal Teposte al 928-343-8201.)

Laguna Dam is located 13 miles northeast of Yuma, and about five miles downstream from Imperial Dam. Completed in 1909, Laguna is the oldest dam on the Colorado River. Its original purpose was to divert Colorado River water to Yuma area projects. This function is now performed by Imperial Dam, and Laguna Dam now serves primarily as a regulating structure for Imperial Dam sluicing operations.

###

Reclamation is the largest wholesale water supplier and the second largest producer of hydroelectric power in the United States, with operations and facilities in the 17 Western States. Its facilities also provide substantial flood control, recreation, and fish and wildlife benefits. Visit our website at <http://www.usbr.gov>.

Dear Interested Party:

The Yuma Area Office of the Bureau of Reclamation (Reclamation) is preparing an Environmental Assessment (EA) to evaluate potential impacts from the creation of 1100 acre feet of additional storage upstream of Laguna Dam. Specific objectives of the proposed project include:

- Capture sluicing flows (est. 400-500 Ac. Ft.) released from Imperial Dam and
- Maintain the operational integrity (function ability) of Laguna Dam and
- Operate the river effectively and efficiently below Imperial Dam

Operation of the California sluiceway of the All American Canal/Imperial Dam complex requires release of a “slug” of water to wash accumulated sediments downstream to the Laguna Settling Basin. About 400-500 Ac. Ft. of water is released by Imperial Dam in each event. This water will be retained by Laguna Dam. Presently, the storage capacity of Laguna Dam reservoir is insufficient to retain sluicing flows, which must continue downstream. Reduced storage capacity at Laguna Reservoir has made it difficult to run a sluice for sediment control any more than about once every two weeks. To keep the Sluiceway Channel relatively clean of sediment deposited from the AAC desilting basins, sluicing operations should be performed approximately twice a week.

In addition to affecting the ability to store sluicing flows, the sediment deposition and resulting vegetation growth near hydraulic features is compromising the function of the reservoir. Near the upstream end of the concrete outlet channel, vegetation has blocked about two thirds of the channel. Vegetation has also blocked flow from a significant portion of the spillway. If allowed to continue to grow across the remaining open section of spillway, flow to the spillway will be completely blocked which would raise the water surface above the design water surface elevation during relatively modest floods.

Laguna Dam is still used as a regulating structure for the reservoir. Dredging above the dam will ensure continued water deliveries of Treaty waters to Mexico. In addition, vegetation encroachment on the dam limits operational functions, especially during high flows. Increased storage of waters will maximize the Laguna Settling Basin’s operational flexibility and provide a greater flexibility to operate the entire Laguna structures efficiently.

Restoring reservoir capacity above Laguna Dam will provide Reclamation a greater operational flexibility of its sluicing operations in an environmentally and economically sound manner in the interest of the American public. Dredging will begin in fiscal year 2006, last for approximately 24 months and utilize Reclamation dredging personnel and equipment.

Laguna Dam is located 13 miles northeast of Yuma, Arizona and about 5 miles downstream from Imperial Dam. Construction of Laguna Dam was completed in 1909. It is the oldest dam on the Colorado River. The dam’s original purpose was water diversion to the Yuma Main Canal. In 1941 a turnout was provided at Siphon Drop on the All-American Canal to supply part of the Yuma Project with water diverted by Imperial Dam and in 1948 the turnouts on the California side of Laguna Dam were sealed. Today

Laguna Dam has an integral role on the lower Colorado River serving as a regulating structure for sluicing flows and downstream toe protection for Imperial Dam.

### **Open House**

On Thursday, September 22, 2005 the Bureau of Reclamation will host an open house to provide information and to seek your input on the project and its alternatives. The open house will be held at the Yuma Crossing State Historic Park, 201 North Fourth Avenue, Yuma, Arizona, from 6:00 p.m. to 8:00 p.m. with a presentation about the project from 6:30 p.m. to 7:00 p.m. A period for oral comments and questions will be held from 7:00 p.m. until completion. All open house facilities are physically accessible to people with disabilities.

During this open house, Reclamation representatives will be available to provide information and respond to questions about the Laguna Restoration Project and proposed alternatives. Attendees will be able to view information about the proposed project, and existing site conditions in the area that would be affected by the proposed project (e.g., land uses, biological and cultural resources).

### **How to Comment**

The open house will provide an opportunity for agencies and the public to comment on the scope of the issues to be addressed in the EA. The EA, a National Environmental Policy Act compliance document is being prepared for the proposed project and is meant to integrate consideration of environmental values into planning and decision making. A Draft EA is anticipated to be available for public review and comment in December 2005. Final design, project approval, and ultimate construction will begin in spring 2006.

Those unable to attend the open house should send their written comments by October 21, 2005, by mail to Ms. Kimberly Garvey, Bureau of Reclamation, Yuma Area Office, 7301 Calle Agua Salada, Yuma, Arizona 85364; or by fax to Ms. Kimberly Garvey, Bureau of Reclamation, at 928-343-8320. To give Reclamation the opportunity to effectively consider comments within the Draft EA, comments should be provided no later than October 21, 2005.

After reviewing public comments on the proposed project, Reclamation will analyze the effects of the project and its alternatives on resources in the project area and prepare a Draft EA. Reclamation will provide notice when the Draft EA is available for public review. A Draft EA is anticipated in late November 2005.



**Letter Announcement Mailing List**

Bureau of Indian Affairs Western Regional Office PO Box 10 Phoenix, AZ 85001	Bureau of Land Management California Desert District 22835 Calle San Juan De Los Lagos Moreno Valley, CA 92553	Bureau of Land Management El Centro Field Office 1661 South Fourth Street El Centro, CA 92243
California Department of Fish and Game Eastern Sierra and Inland Deserts Region 3602 Inland Empire Blvd., Suite C-220 Ontario, CA 91764	California Department of Transportation Headquarters PO Box 942873 Sacramento, CA 94273	California Department of Transportation District 11 PO Box 85406 San Diego, CA 92186-5406
Chemehuevi Indian Tribe PO Box 1976 Havas Lake, CA 92363	Cibola National Wildlife Refuge Route 2, Box 138 Route 2, Box 138 Cibola, AZ 85328	City of Blythe 235 North Broadway Blythe, CA 92225
City of Palo Verde Planning Department 801 Main Street El Centro, CA 92243	City of Ripley Community Service District Office 24501 School Road Ripley, CA 92225	Cocopah Indian Tribe County 15 and Avenue G Somerton, AZ 85350
Colorado River Indian Tribal Council Route 1, Box 23-B Parker, AZ 85344	Community Planning and Liaison Office MCAS-Yuma Box 99106 Yuma, AZ 85369-9106	County of Imperial 940 Main Street El Centro, CA 92243
Environmental Defense	Fort Mojave Indian Tribe 500 Merriman Avenue Needles, CA 92363	Fort Yuma Quechan Indian Tribe PO Box 1899 Yuma, AZ 85366
Gila River Indian Community PO Box 2140 Sacaton, AZ 85247	Imperial National Wildlife Refuge PO Box 72217 Martinez Lake, AZ 85365	US Environmental Protection Agency Region IX 75 Hawthorne Street San Francisco, CA 94105
U.S. Fish and Wildlife Service Phoenix Office	U.S. Army Corps of Engineers	US Geological Survey Western Regional Office Menlo Park Campus, Bld. 3 345 Middlefield Road Menlo Park, CA 94025
Wellton-Mohawk Natural Resources Conservation Service 5578 South Avenue, 37 East Roll, AZ 85347	Yuma County 198 South Main Yuma, AZ 85364	Yuma County Planning and Zoning Division 2703 South Avenue B Yuma, AZ 85364
Center for Biological Diversity PO Box 710 Tucson, AZ 85702-0710		



# **APPENDIX B    OPEN HOUSE MATERIALS**

- **OPEN HOUSE POSTERS**

- Welcome Poster
- Fact Sheet
- Laguna Restoration Project, Project Location
- How to Provide Input

- **POWERPOINT PRESENTATION**

- **SIGN-IN SHEET**

- **EASEL COMMENTS**

- **TRANSCRIPT, OPEN HOUSE YUMA, AZ SEPTEMBER 22, 2005**



# Welcome to the Open House

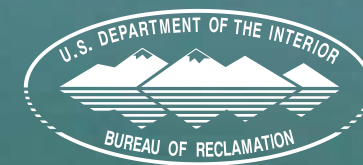
# Laguna Restoration Project

# Environmental Assessment

Thursday, September 22, 2005

6:00 P.M. to 8:00 P.M.

**RECLAMATION**  
*Managing Water in the West*



U.S. Department of the Interior  
Bureau of Reclamation

## Laguna Restoration Environmental Assessment

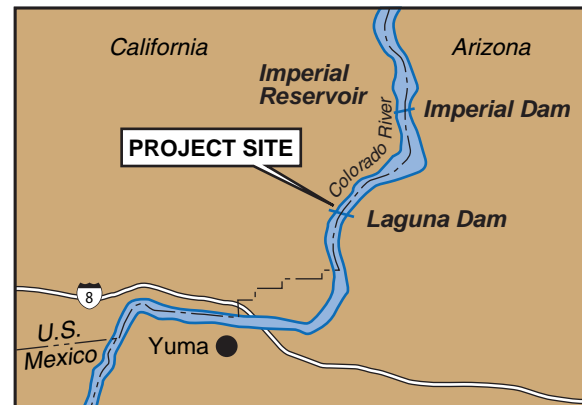
### Project Location

Laguna Dam is located on the Colorado River 13 miles northeast of Yuma, Arizona, and about five miles downstream from Imperial Dam.

### Purpose and Need

The purpose of the proposed project above Laguna Dam is to provide increased water storage capacity to:

- Capture sluicing flows (est. 400-500 Ac. Ft.) released from Imperial Dam, and
- Maintain the operational integrity (functional ability) of Laguna Dam and
- Operate the river effectively and efficiently below Imperial Dam

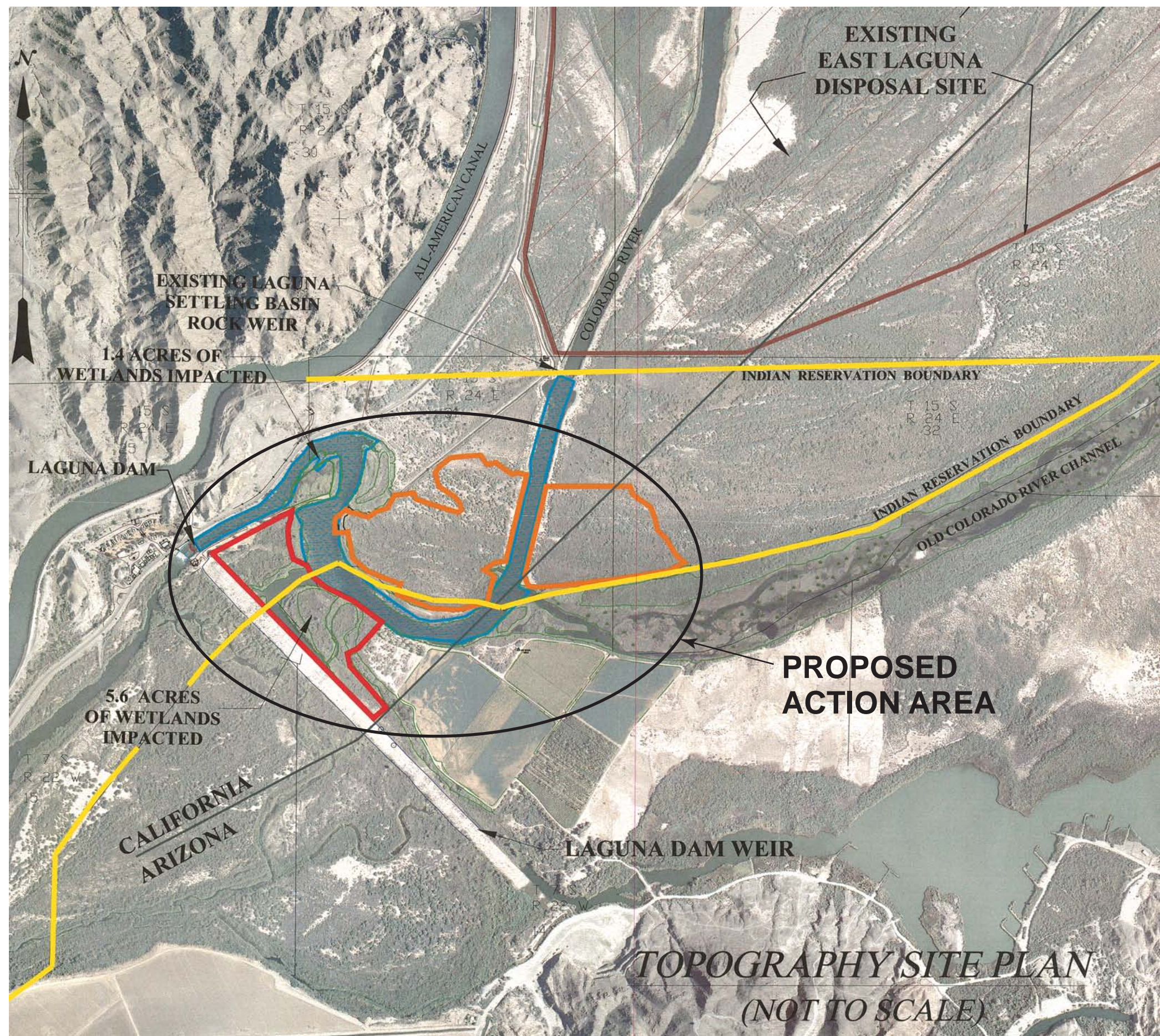


Operation of the California sluiceway of the All American Canal/Imperial Dam complex requires release of a “slug” of water to wash accumulated sediments downstream to the Laguna Settling Basin. About 400-500 Ac. Ft. of water is released by Imperial Dam in each event. This water will be retained by Laguna Dam. Presently, the storage capacity of Laguna Dam reservoir is insufficient to retain sluicing flows, which must continue downstream. Reduced storage capacity at Laguna Reservoir has made it difficult to run a sluice for sediment control any more than about once every two weeks. To keep the Sluiceway Channel relatively clean of sediment deposited from the desilting basins, sluicing operations should be performed approximately twice a week.

In addition to affecting the ability to store sluicing flows, the sediment deposition and resulting vegetation growth near hydraulic features is compromising the function of the reservoir. Near the upstream end of the concrete outlet channel, vegetation has blocked about two thirds of the channel. Vegetation has also blocked flow from a significant portion of the spillway. If allowed to continue to grow across the remaining open section of spillway, flow to the spillway will be completely blocked which would raise the water surface above the design water surface elevation during relatively modest floods.

Laguna Dam is used as a regulating structure for operation and maintenance of the Lower Colorado River. Dredging above the dam will ensure continued water deliveries of Treaty waters to Mexico. In addition, vegetation encroachment on the dam limits operational functions, especially during high flows. Increased storage of waters will maximize the Laguna Settling Basin’s operational flexibility and provide a greater flexibility to operate the Laguna structures efficiently.

# Laguna Restoration Site Location



## How to Provide Input

### Laguna Restoration Project Environmental Assessment

We would like to hear from you!

There are many ways to provide input.

You may:

1. provide verbal comments at the open house; or
2. you may choose to attend the open house and provide written comments at that time; or
3. you may provide written comments via email to either [KGARVEY@lc.usbr.gov](mailto:KGARVEY@lc.usbr.gov), on or before October 21, 2005; or
4. you may provide written comments via fax to Ms. Kimberly Garvey, Bureau of Reclamation, at 928-343-8227, on or before October 21, 2005; or
5. you may provide written comments via U.S. Mail addressed to Ms. Kimberly Garvey, USBR-YAO, 7301 Calle Agua Salada, Yuma, AZ, 85364, on or before October 21, 2005.

If you chose to provide written comments, please also provide the following information that will allow us to contact you if necessary:

Name  
Representing  
Address  
City, State, and Zip Code  
Phone No.  
Email Address

After reviewing public comments on the proposed project, Reclamation will analyze the effects of the project and its alternatives on resources in the project area and prepare a Draft EA per the directives of the National Environmental Policy Act. Reclamation will provide notice when the Draft EA is available for public review. A Draft EA is anticipated in late Fall 2005.

# Welcome to the Open House

# Laguna Restoration Project

# Environmental Assessment

Thursday, September 22, 2005  
6:00 P.M. to 8:00 P.M.

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U.S. Department of the Interior  
Bureau of Reclamation

# RECLAMATION

*Managing Water in the West*

## Laguna Restoration Project



U.S. Department of the Interior  
Bureau of Reclamation

# Laguna Restoration Project Location

- The proposed project is located above Laguna Dam
- 13 miles northeast of Yuma
- 5 miles downstream of Imperial Dam
- Project footprint may extend into both Arizona and California



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# Laguna Dam History

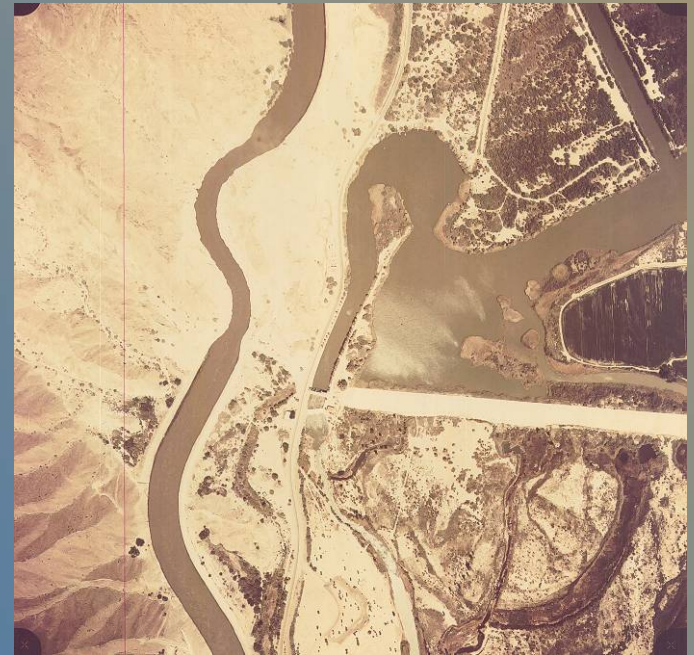
- Oldest Dam on the Colorado River
- Completed in 1909, it is a register-eligible Historic Structure
- Served as a diversion structure for the Yuma Main Canal (CA) and the North Gila Canal (AZ)
- Imperial Dam, built upstream in 1939, altered the diversion function of Laguna Dam



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# Laguna Dam History (con't)

- Prior to 1980, the storage capacity of the reservoir above Laguna Dam was maintained through dredging at about 1,500 acre-feet



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# Laguna Dam Today

- Regulating structure for sluicing flows to control sediment
- Provides scour protection for Imperial Dam



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# Current Characteristics



- About 400 acre-feet of existing storage capacity
- Currently a 10-foot fluctuation during sluicing events
- Reservoir must be nearly empty prior to sluicing
- Spillway function has been reduced by vegetation overgrowth

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# Proposed Reservoir Characteristics

- 1,100 acre-feet of additional capacity above Laguna Dam
- 3-foot fluctuations during sluicing events
- Environmental and safety benefits from regulating flows into and out of Laguna Dam
- Remove some vegetation immediately upstream of the spillway to restore flood flow capacity



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# Purpose and Need for Project

- Capture sluicing flows (about 400-500 acre-feet) released from Imperial Dam, and
- Maintain the operational integrity (functional ability) of Laguna Dam, and
- Operate the river effectively and efficiently below Imperial Dam



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# Project Goals

- Restore capacity above Laguna Dam
- Allow for increased sluicing operations
- Ensure safety of the public from fluctuating flows below Laguna Dam
- Preserve the structure of Laguna Dam
- Decrease impacts to the environment by minimizing elevation fluctuations
- Cost-effective construction and maintenance

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# The Proposed Action Will...

- ...Create an additional 1,100 acre-feet of storage capacity above Laguna Dam
- ...Have no changes to the dam or control structures
- ...Dredge the area in front of the spillway



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# The Proposed Action Will...



...Dispose of excavated/  
dredged material in the  
existing Laguna Settling  
Basin Disposal Site

...Minimize the amount  
of wetlands impacted

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# Questions? Comments?



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# We would like to hear from you! There are many ways to provide input.

- Provide verbal comments at the open house; or
- You may choose to attend the open house and provide written comments at that time; or
- You may provide written comments via email to either [kgarvey@lc.usbr.gov](mailto:kgarvey@lc.usbr.gov), on or before October 21, 2005; or
- You may provide written comments via fax to Ms. Kimberly Garvey, Bureau of Reclamation, at 928-343-8227, on or before October 21, 2005; or
- You may provide written comments via U.S. Mail addressed to Ms. Kimberly Garvey, USBR-YAO, 7301 Calle Agua Salada, Yuma, AZ, 85364, on or before October 21, 2005. If you chose to provide written comments, please also provide the following information that will allow us to contact you if necessary:
  - Name
  - Representing
  - Address
  - City, State, and Zip Code
  - Phone Number
  - Email Address
- After reviewing public comments on the proposed project, Reclamation will analyze the effects of the project and its alternatives on resources in the project area and prepare a Draft EA per the directives of the National Environmental Policy Act. Reclamation will provide notice when the Draft EA is available for public review. A Draft EA is anticipated in December 2005.

# RECLAMATION

## Sign-In Sheet

### Laguna Restoration Project Environmental Assessment Public Scoping Meeting

Bureau of Reclamation

Yuma, Arizona, September 22, 2005

Welcome to the Scoping Meeting. Please take a moment to sign in.

Name	Address	Email Address	Draft EA
William Pyott	P.O. Box 11000 Yuma, AZ 85366		✓
Cathi Alongz	10197 Tornado Ave	gcalongz@earthlink.net	
Russ Engel	9140 E 28 <sup>th</sup> St.	rengel@azgfd.gov	
Ernie Mendivil	P.O. Box 505 Winlock, AZ 92283		
Jon FUGATE	2428 W. 13 <sup>th</sup> Place	jff@underhelttransfor.com	
Ryan McDermott	2907 S. Ave A, Yuma	Robert.Stevenson-McDermott@AZ.USDA.GOV	
Jeff Young	2855 Gila Ridge Rd. Yuma, AZ	jeffrey-young@blm.gov	
Aaron Curtis	2555 Gila Ridge Yuma, AZ	Aaron-Curtis@blm.gov	
Kenneth EPPERLEY	P.O. Box 1841 Yuma AZ 85366-1841	Kenneth.Epperley@yuma.Army.mil	✓

Laguna Restoration Project  
Public Scoping Meeting Notes  
Comments Received on Easel Paper  
22Sep2005

- John Fugate, YVRGC
  - Consider opening area along entire length of the spillway (to Betty's Kitchen) for boat access (15-20' wide).
  - Improve boat access at existing boat launches near Pratt agricultural lease to the main river channel.
  - Deepen channel in old river channel for boat navigation and fish and wildlife resources.
  - Provide for freshening flows in the old river channel.
  - This is a win-win project.
  - Implementation of the proposed action will benefit existing fishery.
  - Make better (wider) connections to Mittry Lake.
- BLM
  - Address potential security issues by allowing more people to access this area.

TRANSCRIPT OF PUBLIC COMMENTS

OPEN HOUSE/PUBLIC MEETING  
LAGUNA RESTORATION PROJECT  
ENVIRONMENTAL ASSESSMENT

THURSDAY, SEPTEMBER 22, 2005  
YUMA CROSSING STATE HISTORIC PARK  
201 NORTH 4TH AVENUE  
YUMA, ARIZONA 85364

REPORTED BY:  
SILVIA D. GIDDIS,  
C.S.R. NO. 12014  
PAGES 1-26  
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5 MS. GARVEY: Hi, my name is Kim Garvey, and I  
6 work for the Bureau of Reclamation here in Yuma. I'd  
7 like to welcome you all to the public meeting for the  
8 Laguna Recreation Project Environmental assessment.  
9 We're here tonight to provide you guys with information  
10 about the proposed project and receive comments back  
11 from you. I'd like to welcome everybody.

12 I just want to be sure before we get started,  
13 did everybody receive a handout and a map? Did anybody  
14 still need those? Okay, perfect. We could have more  
15 available, if you want to take some back to your  
16 prospective groups. I know a lot of you are here  
17 representing organizations, so if you want to take some  
18 of those back, you're more than welcome.

19 The format that we're going to proceed under  
20 here is, Scott Tincher, one of our engineers, is going  
21 to give you a little presentation, and then if you could  
22 hold your comments. Then we are going to go through a  
23 question and answer and comment period orally. And then  
24 if you want to provide written comments after that, we  
25 can do that as well.

1           Let me start by introducing the team here.  
2   Like I said, we got Scott Tincher here, engineer. And  
3   we all work at the Yuma area office. We've got Julian  
4   De Santiago; he does environmental compliance. Peggy  
5   Haren, our land specialist. She is our land/water  
6   contract manager. We have got Don Young right here. He  
7   is an Assistant Area Manager, and does a lot with water  
8   operations. So he is a Water Operations Specialist.  
9   We've got Jack Simes in the back. He's our Public  
10   Affairs Officer. We've got Cynthia Hoeft right here, my  
11   boss. She is the director of the Resource management  
12   Office. We've got John Nickels (phonetic). He's  
13   another engineer. And then his boss right in front is  
14   Ross. Oh, here is Ross. He is the director of the  
15   Technical Services Offices.

16           So we have a lot of Reclamation Employees here  
17   tonight. You guys can definitely get some questions  
18   answered. And Jenniffer Rocosky (phonetic), who just  
19   wanted to listen today is a Deputy Area Manager here in  
20   Reclamations. She is new to the office and, you know,  
21   it's nice to get some new blood down here.

22           So I'd like to welcome you all. Thank you for  
23   coming. And I'm going to turn it over to Scott. Like I  
24   said, if you could hold your questions. Jack looks like  
25   he has got something he wants to add.

1 MR. SIMES: I just wanted to ask if anybody  
2 felt the need to have anybody in the room identify  
3 themselves, or if you want to wait and do that.

4 MS. GARVEY: Yeah. We can definitely go around  
5 the room and identify themselves, if everybody wants to  
6 do that. We'll start here (indicating).

7 AUDIENCE: My name is Kim Malony (phonetic).  
8 Bobby McDurat (phonetic), Desert Pass Angler, National  
9 Resources Conservation Service, all conservations  
10 districts swap.

11 MS. GARVEY: Thank you.

12 AUDIENCE: Bill (inaudible). Jeff Young  
13 (inaudible). Erin Curtis (phonetic) I'm also with BLM.  
14 Ernie (inaudible), retired. Russ Ingle (phonetic)  
15 (inaudible) and fish. Johnny Fugate (phonetic) Yuma  
16 Valley (inaudible). I'm Yolanda.

17 MS. GARVEY: We've also got a reporter here in  
18 the back. And just to be clear, the reporter -- this  
19 isn't a formal hearing. We just want to make sure that  
20 we get everything down that everybody says, so we can  
21 address it in the environmental assessment. And the  
22 person I forgot to introduce is Sal Teposte. He is our  
23 Interpreter slash AV Specialist. So he is here tonight.  
24 So for now I'm going to turn it over to Scott, and he  
25 can get to his presentation. And Jack, you got the

1 (indicating) -- Perfect. Thank you.

2 MR. TINCHER: Thanks, Kim. My name is Scott  
3 Tincher. I'm an engineer with the Reclamation Yuma area  
4 office. I'm going to give a brief presentation of the  
5 history of the project area, as well as a general idea  
6 of what we're looking for a project.

7 The project area is up just above Laguna Dam,  
8 which is, as most of you know, that's 13 miles northeast  
9 of Yuma, and about five miles downstream of Imperial  
10 Dam. The project area footprints straddles the  
11 California and Arizona state line. Laguna Dam is the  
12 oldest dam on the Colorado River. It was built between  
13 1905 and 1909. As such it's a registered historical  
14 structure site. Initially served as diversion  
15 controlled structure for the Yuma project diverting  
16 water in the Yuma main canal on the California side of  
17 the dam and into the north -- canal on the Arizona side.

18 When the Imperial Dam was completed, the  
19 purpose of Laguna changed by 1948 all diversions were  
20 occurring up at Imperial. And essentially Laguna became  
21 more or less an alphabet for Imperial land. Prior to  
22 1980, up to about 1983, the bureau of reclamation  
23 maintained about 1500 acre feet of storage through  
24 draining activity. On the right is a photo from 1979  
25 and it shows on the California side of the reservoir.

1           As I said, Laguna became more or less an after  
2 dam once Imperial was completed. Up in Imperial,  
3 sediment is removed from diversions under the all  
4 American Canal through Summing (phonetics) farms, and  
5 put back into the river just downstream of Imperial Dam.

6           On occasion to move that sediment to the area  
7 where it's removed from the river, sluicing flows or  
8 flashing flows, which are higher than normal are  
9 released from Imperial to push that sediment down to the  
10 Settlement (phonetic) River, where is removed from the  
11 river.

12           Those higher flows just allow to continue to  
13 pass Laguna Dam with flow all the way through Yuma,  
14 which could be a safety concern. So Laguna regulates  
15 those flows and maintains a constant moderate flow below  
16 Laguna Dam. And that's the primary purpose these days  
17 for Laguna Dam, is to control the sluice flow.

18           And the secondary purpose is to control river  
19 scour. River scour occurs due to sediment moving from a  
20 particular location to another causing the bed of the  
21 river to erode. There is about ten foot in the river  
22 scour at Laguna. If allowed to continue upstream, it  
23 would eventually make its way to Imperial Dam causing  
24 difficulties with operation at Imperial. So all the  
25 scour is controlled at Laguna Dam.

1           Currently Laguna Dam has 400 acre foot of  
2 capacity just to control sluicing flow. From one  
3 sluice, we move about 400 acre foot of water to flush  
4 the material down to the Laguna selling base.  
5 Therefore, you pretty much need to drain, for the most  
6 part, the reservoir to prepare for a sluicing event,  
7 which can be up to ten foot drop in water surface  
8 elevation (inaudible).

9           In addition, as you can see near the spillway,  
10 there has been quite a bit of sedimentation and also  
11 vegetation growth in front of the spillway and to some  
12 degree at the entrance of the alley channel. And that  
13 is constricting the ability to pass flood flows in a  
14 predictable fashion.

15           The proposed reservoir would increase storage  
16 by 1100 acre feet to a total capacity of about 1500  
17 acres. By having that increased storage, instead of  
18 having a ten-foot fluctuation, you'd have about a three  
19 foot fluctuation. That would have environmental and  
20 safety benefits by not having water fluctuate that much  
21 upstream of the dam. And also ensuring control of  
22 sluicing flows below the dam.

23           In addition, we are considering removing some  
24 of the sediment and vegetation at the primary hydraulics  
25 pressure (inaudible) and the alley channel. Spillways

1 are features that allow larger than normal flows to pass  
2 the dam without damaging the dam. In this case, most of  
3 the Laguna Dam is a spillway. And that's the purpose  
4 and need of the project. It's to increase storage so  
5 that we have ability to capture sluice and flows.

6           Currently, with all the operational  
7 considerations that we have, I'm going to go into that  
8 into detail, we're only able to sluice once every two  
9 weeks, which is proving insufficient to move material  
10 from below Imperial Dam. When we do sluice, it does  
11 sluice some of the material, but not all. Eventually it  
12 does accumulate. And that allow us, once we have that  
13 extra storage and are able to sluice more frequently,  
14 we'll have a more effective and efficient operation  
15 moving that sluice material.

16           In addition, one of the needs of the project is  
17 to remove the sediment and vegetation in the vicinity of  
18 those hydraulics structures I talked about, spill way  
19 and to some degree the altitude channel. And those are  
20 the project goals. The goals are to increase storage,  
21 so we can sluice more frequently to move that sediment  
22 down. That will ensure that the increased volume for  
23 capturing sluices and flows will ensure we don't allow  
24 higher than normal flows to get below the dam.

25           We're going to preserve the historic structure.

1 We don't want to modify the dam, and perhaps cause  
2 problems with the historic parts of the dam. And by not  
3 allowing a lot of fluctuation upstream of the dam will  
4 minimize impacts to any environmental areas like  
5 wetlands above the dam.

6 On top of that we want to make sure our  
7 construction is cost effective, as well as ongoing  
8 maintenance after the project is completed. And that's  
9 what the project is intended to do, increase storage by  
10 1100 acre feet of a total pass of 1500 acre feet for the  
11 capture of sluice and flow, so that we can sluice more  
12 than we have in the recent pass.

13 We don't want to change or modify the historic  
14 parts of the dam structure or control structures. We  
15 want to dredge areas around the primary hydraulics  
16 structures, primarily portions of the spillway and the  
17 Aloe (phonetic) dam. All material will be disposed of  
18 in existing disposal area near the Laguna base, which is  
19 just at the upper edge of the photo on the screen. And  
20 we want to minimize impact to wetlands to the extent  
21 possible while still achieving the purpose and needs of  
22 the project. And that's all I have. If you will take  
23 over again, Kim, for questions.

24 MS. GARVEY: Hit the lights please. Thank you  
25 Scott, that was awesome. So we are here today not only

1 to provide you information, but also for you guys to  
2 help us identify potentially significant issues of this  
3 project that need to be addressed in the environmental  
4 assessment purpose project.

5 I'm going to field questions. So if you have  
6 questions or comments you can provide to me. The court  
7 stenographer is going to take those down. But like I  
8 said, this is not a formal hearing. It's more just to  
9 make sure that we've collected all the information that  
10 everybody provides for us. So with that, thank you for  
11 coming. And if anybody has any questions or comments,  
12 we would love to take those now. Bobbie?

13 BOBBIE: How many hours may I talk? The orange  
14 areas are the areas you are going to remove; is that  
15 correct?

16 MS. GARVEY: This project is still under  
17 development. And that's kind of what we're trying to  
18 figure out now is the kinds of issues that we need to  
19 address in our environmental assessment. Right now this  
20 is the proposed area that we're looking at. This orange  
21 area is an area that we may be looking at removing.

22 BOBBIE: Okay. And so you would deepen that to  
23 how deep?

24 MS. GARVEY: I'm going to turn that over to  
25 Scott to talk about that.

1           MR. TINCHER: It's essentially the apron  
2 elevation of the gates, which is about -- actually,  
3 there is a small weir at the downstream end of the gate  
4 apron. The gates are right here (indicating). As a  
5 matter of a fact, if I could back up, I can very easily  
6 show you that. This thing doesn't back up. I think it  
7 was -- go back one. There is a spill right here  
8 (indicating). And that's the minimum elevation we can  
9 get water out of this reservoir. So right now that's  
10 approximately the elevation we're going to excavate to,  
11 which is about ten foot below the top of the of the dam.  
12 So it's approximately ten feet below that, and some of  
13 these areas (indicating) might have two to three feet of  
14 material above that elevation. So the total depth of  
15 material might be something like 13 or so feet.

16           BOBBIE: So if indeed the orange were your work  
17 area, that will become (inaudible)?

18           MS. GARVEY: Yes.

19           JOHNNY: And that's inside the reservations?

20           MS. GARVEY: I'm going to let Peggy Haren field  
21 that question.

22           MS. HAREN: These areas right here  
23 (indicating), this is the reservation boundary as  
24 corrected by the secretary order of 1981. When that  
25 secretarial order was done, some certain lands were

1 reserved in feet for reclamation. And some of these  
2 areas are within the -- we don't have that overlay, but  
3 we do have the maps, if you'd like copies. We have our  
4 protective zone. We have our security zones, and they  
5 are all within this area (indicating), and we'll have  
6 maps that overlay everything, so we know exactly where  
7 this is. What its boundary is going to be. So we'll  
8 know if we're going onto reservation lands or not.

9           Currently, just from a little bit I've looked,  
10 there may be some overlap on reservation land. But if  
11 it's within the reservations boundaries, certain lands  
12 were reserved in feet for reclamation. So most of the  
13 answer to your question is that, yes, it's within the  
14 reservation boundary but, no, it's not on tribal lands.

15           JOHNNY: And I asked the question for a totally  
16 different reason. If you guys dredge that out, and it  
17 becomes ten-foot deep, Bobby is going to be fishing  
18 there. I guarantee you. I was wondering if we're going  
19 to have to buy permits to go fishing. If it wasn't,  
20 that would be nice --

21           MS. GARVEY: We will be conducting consultation  
22 with the tribes. And like I said, all those will be  
23 worked out in the environment assessment. And the map  
24 is showing that increase (inaudible) of the  
25 environmental assessment. And if you have a particular

1 comment -- I mean, if it's something specific like --

2 JOHNNY: Well, not on that one, but I've got  
3 some more.

4 MS. GARVEY: Okay.

5 JOHNNY: I believe you defined it as the old  
6 Colorado River channel.

7 MS. GARVEY: Yeah.

8 JOHNNY: And then it comes out into the main  
9 river channel, and there is a boat launch that we can  
10 use that --

11 BOBBIE: Right at the edge of --

12 MS. GARVEY: Okay.

13 BOBBIE: Right there.

14 JOHNNY: Is there any talk of dredging from the  
15 main river channel at least back that far? Maybe a  
16 quarter mile, less than a half.

17 MS. GARVEY: The exact project footprint is  
18 still being worked out. If that's something you would  
19 like to see happen, we sure would appreciate you put  
20 that in the comment.

21 BOBBIE: Well, and there is also a large --  
22 right here (indicating) that's -- I'm not familiar with  
23 your other option, Johnny. I launch here (indicating).

24 JOHNNY: And I can't see that. Wherever it  
25 is --

1 BOBBIE: Wherever that -- and that would be  
2 wonderful if we could get some depth and definition  
3 there, so we didn't have to --

4 MS. GARVEY: So more specifically, are we  
5 talking about keeping more back water, or are we talking  
6 about opening up the entire thing? Those are the kinds  
7 of things that we need more specific comments about what  
8 exactly you'd like to see out there. So if you could --

9 JOHNNY: Basically while you got the dredge  
10 there, it wouldn't take much to take that down a little  
11 bit.

12 BOBBIE: Just some more depth. The cover is  
13 great. We don't mind cover, because that's where the  
14 fish and all of the specious, you know, but there is  
15 just not a lot of depth there.

16 MS. GARVEY: So you can navigate your boats?

17 JOHNNY: Absolutely.

18 MS. GARVEY: So it's a navigational issue?

19 BOBBIE: Yeah. Just getting into that area.  
20 We've always called it Laguna Lake. I don't know  
21 whether it ever had an official name. Of course in '93  
22 when the water was, up we were all up there, and  
23 everybody was having a great time. And since '93, we've  
24 lost access to pretty much all the area below Laguna Dam  
25 and the channel, which was called Bruce (phonetic)

1 Church because of sedimentation.

2           And if there were a way to keep the  
3 sedimentation above Laguna Dam, it would be wonderful.  
4 From fishing the river the last 12 years, and being in  
5 the natural resource field, the biggest problem I see,  
6 and I realize is beyond your control in many respects as  
7 the bureau, are the rapid fluctuations of the river.  
8 I'll fish -- I watch the water release, and every  
9 Thursday, except this week, there is two or 3,000 CFS  
10 difference. So we have falling water until Sunday;  
11 rising water on Sunday. The banks are saturated, and  
12 every time the water drops rapidly, we have the dirt and  
13 vegetation falling in the river.

14           So we keep re-sedimenting all these areas here  
15 in front of the Imperial Dam that was just redone,  
16 redredged, you know, that only took less than ten years  
17 for that to build back up again. A lot of that has to  
18 do with that very rapid fluctuation. If we could ease  
19 the river down, then the water would have a chance to  
20 drain, and that's a huge weight (inaudible).

21           And that's one thing I've seen over and over  
22 again. And I know that this is not that project, but it  
23 would help keep sediment out of there. And if there  
24 were a way to keep sediment below Laguna, then maybe  
25 some day we could open up -- come down the complex.

1 MS. GARVEY: Thank you.

2 JOHNNY: What's the red square?

3 MS. GARVEY: The red?

4 JOHNNY: Yeah.

5 MS. GARVEY: When we wrote these down, it was  
6 kind of more just to break it down. This red area is  
7 the area directly behind the spillway right here which  
8 is (inaudible) flood. And it's actually got three  
9 different habitat types in there. It's a little bit of  
10 (inaudible), wetland, and a little bit of open water.  
11 So we just wanted to be able to break that down. Where  
12 as this one (indicating) is -- the orange squares are  
13 all upland, and the blue is water. This red one is a  
14 bit more diverse.

15 JOHNNY: Is that a dredge location site?

16 MS. GARVEY: It's a potential dredge location  
17 site, yes.

18 JOHNNY: It makes sense to me. And would you  
19 be considering going back to Betty's Kitchen  
20 parallelling where --

21 MS. GARVEY: If that's something you'd like to  
22 see, we'd surely like --

23 JOHNNY: I'd like for somebody to tell me if  
24 they are thinking about it. Can you do that right now?

25 MR. SIMES: If we are thinking about it?

1                   JOHNNY: Yeah.

2                   MR. SIMES: We have been considering it. The  
3 issue that we have to deal with in an area like that is  
4 it's a fair amount of wetlands that would be affected,  
5 if we were to dredge back into that direction. But it  
6 is under consideration.

7                   JOHNNY: I mean, I rode the boat many a times  
8 on Saturday evenings with my parents --

9                   MS. GARVEY: You're talking about right here  
10 (indicating).

11                  JOHNNY: I'm not sure how far back Betty  
12 Kitchen is. Almost all the way the (inaudible) white  
13 line. And I mean, the water is there. You get a  
14 (inaudible). To me, you wouldn't be destroying a lot of  
15 habitat. It's just whatever you guys call it.

16                  MR. SIMES: How wide a path would you be kind  
17 of talking about?

18                  JOHNNY: Let Bobbie answer that one. She's is  
19 the fishing expert.

20                  BOBBIE: The --

21                  JOHNNY: As wide as that can move either way.

22                  BOBBIE: Ten or 15 feet wide. We fish the  
23 Arizona channels, which a boat wide. So, yeah. And  
24 that used to be open when I came here almost 40 years  
25 ago.

1           MR. SIMES: If we can do that without causing  
2 too many environmental impact, we can definitely  
3 consider that option.

4           BOBBIE: And would it be possible to maybe  
5 reestablishing some wetlands in another area? You know,  
6 do a trade with some other agency for lands and  
7 reestablishing the same variety of wetlands that you  
8 have there. I know we looked at some wetlands area for  
9 my agency standpoint for a couple of our programs down  
10 around Avenue 3 at one point in time. What we had was  
11 wet land and not wetlands.

12           And so I know that there is -- we can  
13 reestablish some of those habitats. And there is a lot  
14 money out there for that sort of stuff as well.

15           MS. GARVEY: And we appreciate those comments.  
16 Some of this stuff that we are doing is regulatory  
17 driven. So we do have to minimize impact to the  
18 greatest extent possible, you know, within -- as long as  
19 it's cost effective and available technology, and things  
20 like that.

21           But we definitely appreciate your comments.  
22 And if that's something the local people and local  
23 groups would like to see, we would really appreciate  
24 putting that in writing. And kind of working through  
25 Arizona Game and Fish too to get your views out there.

1 And maybe even California Fish and Game, because it's on  
2 both sides of the lot. So you know, just -- and we  
3 will, you know, look at everybody's comments.

4 JOHNNY: We all got to satisfy Marjorie. If we  
5 can satisfy Marjorie, we will all be good. That's the  
6 key person to satisfy. But I would think that that  
7 would be a positive thing from Reclamation standpoint,  
8 because I don't know if you can justify it by increasing  
9 your capacity with that. I don't know how far the boom  
10 moves left and right on the (inaudible). I think that  
11 would be ample enough.

12 But as long it didn't effect Ross, meaning game  
13 and fish and habitat issues, it would sure increase  
14 public use, fishing. And it used to be that way. We  
15 used to be able to do that. It's been a long time ago.  
16 So this is one place, at least on behalf of  
17 (inaudible), where we've been kind of anti-dredging in  
18 the last 30 years. Remember the good old days when we  
19 just rift raft, fishing and all of that. But in regards  
20 to this, to me it's basically a win, win situation from  
21 my standpoint today.

22 MS. GARVEY: Thank you.

23 JOHNNY: You are welcome.

24 MS. GARVEY: Does anybody have anything else,  
25 any other questions, comments that they would like to

1 provide?

2 BOBBIE: Are there water quality issues in that  
3 area? Is the quality equal to Colorado River, the  
4 diversion at Imperial Dam, or are you getting more salt  
5 in this area?

6 JOHNNY: It's pretty close to Imperial Dam.  
7 Not a lot.

8 BOBBIE: So greater flow goes through that as  
9 well?

10 JOHNNY: Yeah.

11 MS. GARVEY: Are you guys identifying that as  
12 an issue?

13  
14 BOBBIE: That's definitely an issue.  
15 Particularly when the fluctuation is in the water.

16 MS. GARVEY: Anything in particular?

17 BOBBIE: No, it's mostly just evaporation. As  
18 shallow water heats more, all of the wildlife go deeper.  
19 If we had deeper water for them to escape to, we'd have  
20 much better wildlife in all of those areas, and any  
21 islands that they can (inaudible), then they could use  
22 that for cover.

23 MS. GARVEY: Are there any other issues you  
24 guys would like to see addressed in the environmental  
25 assessment that we haven't talked about? I think we got

1 water quality, recreation, fish and wildlife.

2 JOHNNY: A possible solution, if indeed you  
3 mean beyond, go parallel with the (inaudible), and then  
4 Marjorie says, "What are you going to do for me," which  
5 she probably will, how about consideration of somehow  
6 bringing water back into the old river channel, not to  
7 be dredged, just somewhere off the upper end? You guys  
8 bring water in Demitry (phonetic) up the other end, and  
9 it wouldn't probably take too much to cut in over there.  
10 I'm just talking fresh water, not to go in there and  
11 dredge. That might be something that it definitely will  
12 be good for the habitat. I'm sure from everybody's  
13 standpoint.

14 MS. GARVEY: So you are talking about some  
15 refreshing flows in the old channel?

16 JOHNNY: Uh-huh.

17 BOBBIE: From Demitry (phonetic) Lake or --

18 JOHNNY: About the only way you can get it in  
19 there is -- I'm not an engineer, but the only way to get  
20 it in there would be to concrete out to the ditch or  
21 right at it, where it dumps into Demitry (phonetic)  
22 there.

23 MR. SIMES: That would be the easiest way.

24 MS. GARVEY: Yeah. I mean, 'cause we have our  
25 disposal site for the area. So the project is going to

1 be right here (indicating). And that is attachment for  
2 sediment. So we have to be real careful about -- what  
3 incentive benefits do you see from this?

4 JOHNNY: Habitat coming out. The water being  
5 fresh is going to be a moving flow versus a stagnant  
6 flow. I'm not no biologist, but he could probably say  
7 something -- I mean, when the water is moving, things  
8 are a lot better instead of being stagnant. And it  
9 wouldn't be -- it just looks like to me, it wouldn't be  
10 a lot that BR could do to do whatever you need to do  
11 elsewhere that would make the project become a reality.  
12 'Cause this is a neat thing. Something that you guys  
13 obviously need to make Imperial Dam (inaudible).

14 MS. GARVEY: Anything else?

15 BOBBIE: I've got a question for Scott.  
16 Johnny, why are we dominating? The sluicing you are  
17 talking about is the releasing water through Laguna Dam?

18 MR. TINCHER: Yes.

19 BOBBIE: From Imperial Dam sluicing it down to  
20 Laguna?

21 MR. SIMES: Right.

22 MS. GARVEY: You had made a comment in the  
23 hallway about --

24 BOBBIE: Yeah, my real concern is -- another  
25 concern is the fact that we have lost, for all use

1 pretty much, the area from Laguna Dam to the Laguna  
2 River, because it has all (inaudible) back up since the  
3 1983 flood. A tending problem for the farmers in the  
4 north Yuma Valley, of course, is that as that bottom  
5 comes up, they tend to develop water problems on some of  
6 the fields adjacent.

7 But without either some sort of constructive  
8 wetlands, or something to filter out material, you are  
9 going to have the problem every time you move water  
10 through there. So maybe it's a combination of things  
11 too. If we could reduce the amount of material moving  
12 below Laguna Dam, then look at maybe at some point in  
13 time doing something to recreate the wet areas that we  
14 had below there.

15 But there is no point in reopening the Colorado  
16 from Laguna to the Hila (phonetic) if we are going to  
17 not control materials from the dam. It just isn't, you  
18 know, we're spinning our wheels; we've done that before.  
19 And if we could find a more permanent solution to keep  
20 it above, since you guys have the dredge working there  
21 all the time anyway that we could keep it up with both  
22 (inaudible).

23 JOHNNY: One more. What's the purpose of the  
24 rock?

25 MR. SIMES: The rock, we're -- actually, Don

1 could probably answer that one best.

2 MR. YOUNG: It pulls water service elevation up  
3 for the -- facility works upstream, so the facility  
4 basing would be more efficiently removing the materials  
5 as it gets down.

6 JOHNNY: In other words, no matter what you do  
7 below, it needs to stay (inaudible).

8 MR. YOUNG: Yes.

9 MS. GARVEY: Any other comments or questions?  
10 Okay. We are going to continue with the open house.  
11 All the reclamation employees are still going to be  
12 available to answer questions one-on-one if you have any  
13 more questions. I've got a paper easel out there, if  
14 anybody wants to provide comments even more informally.

15 And if we go back to the end of the slides and  
16 look at the handout that everybody received on how to  
17 provide input. We have all your comments that we made  
18 here in the meeting, and if you want to still provide  
19 more detailed comments in writing, E-mail or anything  
20 like that, you are more than welcome. Any of those ways  
21 on how to provide input, and we can get those issues  
22 addressed in the environment assessment. Again, thank  
23 you guys for coming. We really appreciate your input.

24 (End of meeting at 7:12 p.m.)

25

1       STATE OF CALIFORNIA       )  
2       COUNTY OF RIVERSIDE     )

3

4               I, Silvia D. Giddis, C.S.R. 12014, Certified  
5 Shorthand Reporter for the State of California do  
6 hereby certify;

7               That the foregoing meeting was transcribed by  
8 me, and that the foregoing is a true record of the same.

9

10

11              I further certify that I am not of counsel nor  
12 attorney for either of the parties hereto or in any  
13 way interested in the event of this case, and that  
14 I am not related to either of the parties hereto.

15

16              WITNESS my hand this 30th day of September  
17 2005.

18

19

---

SILVIA D. GIDDIS  
C.S.R. NO. 12014

20

21

22

23

24

25



## **APPENDIX C COMMENT LETTERS RECEIVED**

- **FEDERAL AGENCY COMMENTS**

- Bureau of Land Management, Aaron Curtis
- U.S. Department of the Interior, U.S. Fish and Wildlife Service, Stephen L. Spangle

- **STATE AGENCY COMMENTS**

- Arizona Game and Fish Department, Russell K. Engel

- **NON-GOVERNMENTAL ORGANIZATION COMMENTS**

- Center for Biological Diversity, Michelle T. Harrington
- Yuma Valley Rod and Gun Club, Jim Ammons



## **FEDERAL AGENCY COMMENTS**

### **Comments of Aaron Curtis, Bureau of Land Management (via e-mail)**

These comments are in reference to the Bureau of Reclamation Yuma Area Office's proposed Laguna Dam Restoration project. According to U.S. Department of the Interior Departmental Manual, Part 613, the Bureau of Land Management (BLM) is primarily responsible for managing natural resource-based recreation on Reclamation acquired and withdrawn lands along the lower Colorado River.

If implemented, the project may create up to 150 acres of additional open water behind Laguna Dam for the purpose of improving water delivery capabilities along the lower Colorado River. The BLM Yuma Field Office anticipates that the proposed project would also indirectly create additional recreational boating access and fishing opportunities behind Laguna Dam. From demonstrated public comments throughout the project's scoping process and past experience in these matters, the BLM believes that these new opportunities may drastically increase the existing recreational use of the area. This may warrant the installation of recreation facilities to address public health and safety and resource protection concerns. The BLM looks forward to future coordination to ensure that any recreation developments in this area will not affect Reclamation's management responsibilities of the lower Colorado River.

If you have any further questions please contact BLM Outdoor Recreation Planner Aaron Curtis at (928) 317-3238 or BLM Wildlife Biologist Jeffrey Young at (928) 317-3213.

### **Comments of Stephen L. Spangle, U.S. Department of the Interior, U.S. Fish and Wildlife Service, Arizona Ecological Services Field Office**

See attached letter.



Thank you for the opportunity to provide comments on the Laguna Restoration Project. If we may be of further assistance, please contact me at (602) 242-0210 x244 or Lesley Fitzpatrick (x236).



Steven L. Spangle

cc: Program Manager, LCR MSCP, Bureau of Reclamation, Boulder City, NV (LC-8000)  
Federal Projects, Fish and Wildlife Service, Phoenix, AZ  
Ms. Marjorie Blaine, Corps of Engineers, Tucson, AZ

W:\Lesley Fitzpatrick\02-271 Laguna Rest scoping.doc:cgg

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## **COMMENTS FROM STATE AGENCIES**

### **Comments of Arizona Game and Fish, Russell K. Engel**

See attached letter.

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THE STATE OF ARIZONA

## GAME AND FISH DEPARTMENT

2221 WEST GREENWAY ROAD, PHOENIX, AZ 85023-4399  
(602) 942-3000 • AZGFD.GOV

Yuma Office, 9140 E 28<sup>th</sup> Street, Yuma, AZ 853653596 (928) 342-0091

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BOB HERNBRODE, TUCSON  
DIRECTOR  
DUANE L. SHROUFE



October 14, 2005

Ms. Kim Garvey Bureau  
of Reclamation Yuma  
Area Office 7301 Calle  
Agua Salada Yuma, AZ  
85364

Re: Preliminary Comments on Proposed Laguna Restoration Project

Dear Ms. Garvey:

The following are Arizona Game and Fish Department's (Department) preliminary comments on the proposed Laguna Restoration project based on information presented at a meeting on September 27<sup>th</sup>, 2005 and subsequent information received by electronic mail on October 6<sup>th</sup>, 2005.

The Department follows direction given by the Arizona Game and Fish Commission (Commission) through Commission Policy when evaluating and making recommendations on land and water projects. Commission policies, that have direct bearing on this proposed project, include the following:

"It is the policy of the Arizona Game and Fish Commission that the Department shall recognize riparian habitats as areas of critical environmental importance to wildlife and fisheries. The Department shall actively encourage management practices that will result in maintenance of current riparian habitat, and restoration of past or deteriorated riparian habitat in accordance with the Department Wildlife Habitat Compensation procedures." The Department's Wildlife and Wildlife Habitat Compensation Procedures are attached for your reference.

"It is the policy of the Arizona Game and Fish Commission that the Department shall seek compensation at a 100% level, when feasible, for actual or potential habitat losses resulting from land and water projects."

The Department notes that the only information that has been provided at this time includes a proposed "footprint" of the project along with a map showing the vegetation types that occur within the project area and a table with the number of acres of each habitat type that will be impacted. The Bureau of Reclamation indicates that only 7 acres of wetlands will be impacted by this project. From the maps provided and a site inspection it appears to the Department that more than 7 acres of wetlands will be removed by this project.

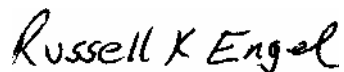
Ms. Kim Garvey  
October 14, 2005  
2

The Department further notes that there is no analysis of potential impacts to wildlife presented at this time. This analysis must be done through the National Environmental Policy Act (NEPA) process and we look forward to reviewing that analysis. This analysis will enable the Department to comment on specific impacts to wildlife and mitigation that may be required for potential impacts. We recognize and understand that this project is included in the Multi-Species Conservation Plan (MSCP) for the Lower Colorado River. We further understand that potential impacts to Threatened and Endangered species listed under the Endangered Species Act will be mitigated through implementation of the MSCP. Impacts to all wildlife species must be analyzed and disclosed through the NEPA process and consistent with the Fish and Wildlife Coordination Act. After an analysis of impacts to all wildlife and wildlife habitats has been conducted a determination of the need, if any, for additional mitigation for impacts to wildlife and wildlife habitat not covered by MSCP can be made.

Of special concern to the Department is how the reservoir behind Laguna Dam will be operated after completion of this proposed project. We note that there is high value riparian habitat in the "old river channel" adjacent to the project area that would be adversely impacted if the reservoir is operated at a lower elevation than it is currently operated at.

Thank you for the opportunity to provide these preliminary comments. If you have any questions regarding these comments please contact me at 928-341-4042.

Sincerely,



Russell K. Engel Habitat  
Program Manager Region IV,  
Yuma

RKE:rke

cc: Larry Voyles, Regional Supervisor, Region IV

Bob Broscheid, Chief, Habitat Branch

Marjorie Blaine, U.S. Army Corps of Engineers

Leslie Fitzpatrick, U.S. Fish and Wildlife Service

Arturo Delgado, California Department of Fish and Game

Attachment

Department Policy: It shall be the policy of the Department to develop adequate compensation plans for actual or potential habitat losses resulting from land and water projects in accordance with State and Federal laws. Habitat compensation plans will seek compensation at a 100% level, where feasible, and will be developed using habitat resource category designations. See Commission Policy A2.16.

Authority: The Director of the Arizona Game and Fish Department is authorized under A.R.S. Title 17-211, Subsection D, to perform the necessary administrative tasks required to manage the wildlife resources of the State of Arizona. Pursuant to those duties and in accordance with federal environmental laws and resource management acts, such as the National Environmental Policy Act, Fish and Wildlife Coordination Act, and Endangered Species Act, the Director is further charged with cooperating in the determination of potential impacts to Arizona's wildlife resources resulting from federally funded land and water projects. In addition, a Commission M.O.U. assigns similar responsibilities for evaluating proposed projects on lands administered by the State Land Department. An integral part of this process is the development of adequate compensation measures aimed at eliminating or reducing project-associated impacts.

Procedure: Criteria used to identify general compensation goals are as follows:

**A. Resource Category I.**

- 1. Designation Criteria.** Habitat in this category are of the highest value to Arizona wildlife species, and are unique and/or irreplaceable on a statewide or ecoregion basis.
- 2. Compensation Goal.** No loss of existing in-kind habitat value.
- 3. Guideline.** The Department will recommend that all potential losses of existing habitat values be prevented. Insignificant changes that would not result in adverse impacts to habitat values may be acceptable provided they will have no significant cumulative impact
- 4. Habitat Types.** Habitat types associated with Resource Category I shall include, but not limited to the following examples:
  - a. Perennial Stream Habitats.
  - b. Wetlands and Riparian habitats of at least one acre in size which are associated with perennial waters. Biotic communities included in this classification follow descriptions provided in Brown (1982) and Henderson and Minckley (1984).
  - c. Key utilization areas for species listed or proposed for listing under the Endangered Species Act of 1973 as Threatened or Endangered and Endangered State Threatened Native Wildlife species.

**B. Resource Category II.**

- 1. Designation Criteria.** Habitats in this category are of high value for Arizona wildlife species and are relatively scarce or becoming scarce on a statewide or ecoregion basis.
- 2. Compensation Goal.** No net loss of existing habitat value, while minimizing loss of in-kind value.
- 3. Guideline.** The Department will recommend that all potential losses of Resource Category II habitat values be avoided or minimized. If significant losses are likely to occur, the Department will recommend alternatives to immediately rectify, reduce, or eliminate these losses over time.
- 4. Habitat Types.** Habitat types associated with Resource Category II shall include, but not limited to, the following examples:
  - a. Key utilization areas for antelope and bighorn sheep.
  - b. Key utilization areas for Threatened and Candidate State Threatened Native Wildlife species, candidate species for federal listing as Threatened or Endangered (Categories 1 and 2).
  - c. Actual or potential reintroduction sites for species that are listed as Extirpated or Endangered on the State Threatened Native Wildlife list.
  - d. Blue ribbon fishing areas (i.e., Lee's Ferry and Becker Lake).
  - e. Isolated mountain ranges providing Subalpine-coniferous forest habitats (i.e., Pinaleno Mountains).
  - f. State and federally operated game preserves, refuges or wildlife areas.
  - g. Montane meadows.

### **C. Resource Category III.**

- 1. Designation Criteria.** Habitats in this category are of high to medium value for Arizona wildlife species, and are relatively abundant on a statewide basis.
- 2. Mitigation Goal.** No net loss of habitat value.
- 3. Guidelines.** The Department will recommend ways to minimize or avoid habitat losses. Anticipated losses will be compensated by replacement of habitat values in-kind, or by substitution of high value habitat types, or by increased management of replacement habitats, so that no net loss occurs.
- 4. Habitat Types Involved.** Habitats in this category are of a natural, undisturbed condition or they involve bodies of water of economic importance and shall include, but not be limited to, the following examples:
  - a. Chihuahuahua, Great Basin, Mohave, and Sonoran Desert habitat types.
  - b. Desert-grasslands and Chaparral zones.
  - c. Oak and coniferous woodlands and coniferous forests.
  - d. Reservoir habitats.

### **D. Resource Category IV.**

- 1. Designation Criteria.** Habitats in this category are of medium to low value for Arizona wildlife species, due to proximity to urban developments or low productivity associated with these lands.
- 2. Mitigation Goal.** Minimize loss of habitat value.
- 3. Guideline.** The Department will recommend ways to avoid or minimize habitat losses. Should losses be unavoidable, the Department may make a recommendation for compensation, based on the significance of the loss.
- 4. Habitat Types Involved.** Habitat types associated with Resource Category IV shall include, but not be limited to, the following examples:
  - a. Agricultural Lands.
  - b. Undeveloped urban areas (i.e., land proximal to waste water treatment facilities, municipal mountain preserves, and undeveloped lands in proximity to municipal and industrial areas).
  - c. Habitats exhibiting low wildlife productivity as a result of man's influence.

## **COMMENTS FROM NON-GOVERNMENTAL AGENCIES**

### **Comments of Michelle T. Harrington, Center for Biological Diversity**

See attached letter.

### **Comments of Jim Ammons, Yuma Valley Rod and Gun Club**

See attached letter.

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# CENTER FOR BIOLOGICAL DIVERSITY

BECAUSE LIFE IS GOOD.

October 20, 2005

Ms. Kimberly Garvey  
Bureau of Reclamation  
Yuma Area Office  
7301 Calle Agua Salada  
Yuma, AZ 85364

Sent via email to: [kgarvey@lc.usbr.gov](mailto:kgarvey@lc.usbr.gov)

**Re: Laguna Dam Restoration Project Environmental Assessment**

Dear Ms. Garvey:

The Center for Biological Diversity (CBD) is a non-profit, public interest, conservation organization whose mission is to conserve imperiled native species and their threatened habitat and to fulfill the continuing educational goals of our membership and the general public. On behalf of our 14,000 members the CBD submits the following comments for consideration in the preparation of an environmental assessment for the Laguna Dam Restoration Project. These comments are not meant to be exhaustive. We anticipate the future opportunities to provide further comment as part of the NEPA process.

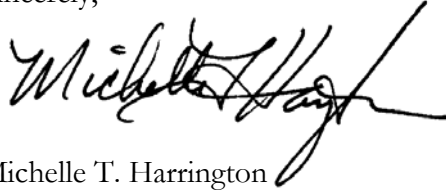
CBD's understanding of the purpose of the project is to remove more than two million cubic yards of sediment from the reservoir to restore storage capacity and restore and maintain regular operations of the dam. We request that the EA review the history of the dam, provide current storage data and current impacts as well as potential impacts resulting from the proposed action. We also request the Bureau review whether an EA is the proper vehicle for evaluation of impacts. We suggest that the full environmental implications of a no-action alternative as well as an alternative that would include the decommissioning of the dam be included in an EIS. The original functions of the dam have been replaced by Imperial Dam, and the necessity of continued operation of Laguna Dam is in question. Economic analyses of the actions would also be appropriate. If the Bureau does not agree that the full range of alternatives should be evaluated, please provide justification.

We request you explain the implications of the Lower Colorado River Multi-species Conservation Program (MSCP) on the proposed project. If the project is a "covered action" within the MSCP, please review and relate the cross-section of allowed habitat loss, actual habitat loss (if any) and mitigation implied in the MSCP. Whether

or not the project is covered by the MSCP, we request the Bureau fully explore the potential impacts to any endangered, threatened, or candidate species or species of concern. These species include the Yuma clapper rail, razorback sucker, southwestern willow flycatcher, and bonytail chub among many others.

Thank you for the opportunity to provide comments on the proposed project. If you have any questions, please contact me at (602) 628-9909 or [mharrington@biologicaldiversity.org](mailto:mharrington@biologicaldiversity.org).

Sincerely,

A handwritten signature in black ink, appearing to read "Michelle T. Harrington", with a long horizontal flourish extending to the right.

Michelle T. Harrington  
Rivers Program Director  
Center for Biological Diversity  
PO Box 39629  
Phoenix, Arizona 85069  
602-628-9909 cell  
[mharrington@biologicaldiversity.org](mailto:mharrington@biologicaldiversity.org)

September 29, 2005

Ms. Kimberly Garvey, Natural Resource Specialist  
US Bureau of Reclamation, Yuma Area Office (YAO)  
7301 Calle Agua Salada  
Yuma, Arizona 85364

Re: Written Comments Regarding Environmental Assessment (EA) For Laguna Restoration  
Project Above Laguna Dam

Dear Ms. Garvey,

On behalf of the Yuma Valley Rod and Gun Club (YVRGC), I would like to take this opportunity to thank the Yuma Area Office for the opportunity to provide comment on the scope and content of an EA for the proposed Laguna Restoration project. The YVRGC supports this project, particularly as it holds opportunity for expansion and enhancement of fish habitat and fishing opportunity.

It is our understanding the YAO has determined that an increase water storage capacity above Laguna Dam is needed in order to capture sluicing flows released from Imperial Dam, maintain operational integrity of Laguna Dam and allow for efficient and effective operation of the river below Imperial Dam.

The YVRGC respectfully request that YAO seriously consider enhancing the following areas while the dredge is in place removing deposition above Laguna Dam.

- 1) Re-open small channel along spillway from Laguna Dam to Betty's Kitchen
- 2) Re-open channel from confluence of old river channel upstream to existing boat ramp
- 3) Provide for fresh water to flow downstream in old river channel into river

Thank you in advance for Reclamation's intentions of this necessary project and will look forward to the enhanced fisheries and fishing opportunity as this project is completed. Please contact Mr. Jon Fugate @ 928.919.0219 should this letter require further explanation.

Respectfully,

Jim Ammons, President

## **Appendix B**

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### **Air Quality Emission Calculations**



Table B-1. Emission Source Data for the Laguna Reservoir Dredging Project.

<i>Activity/Equipment Type</i>	<i>Hp Rating</i>	<i>Ave. Daily Load Factor</i>	<i>Number Active</i>	<i>Hourly Hp-Hrs</i>	<i>Equip-Hrs/ Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
<b>Vegetation Removal</b>								
Bulldozer - D6	170	0.50	1	85	7	595	14	8,330
Bulldozer - D7	215	0.50	1	108	7	753	14	10,535
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	5	NA	14	70
<b>Construct Launch Ramp</b>								
Water Truck	400	0.25	1	100	7	700	7	4,900
Grader	165	0.40	1	66	7	462	7	3,234
Dump Truck - 14 CY	400	0.25	2	200	7	1,400	7	9,800
<b>Mobilize/Dredge &amp; Piping</b>								
Boom Truck - 15 Ton	300	0.50	1	150	7	1,050	4	4,200
Forklift	65	0.50	1	33	7	228	4	910
Lattice Boom Crane	345	0.35	1	121	7	845	4	3,381
<b>Dredging</b>								
Bulldozer - D6	170	0.50	2	170	6	1,020	480	489,600
Dredge - Pump Engine	950	0.75	1	713	18	12,825	480	6,156,000
Dredge - Generator	125	0.90	1	113	18	2,025	480	972,000
Dredge - Aux. Engine - Hydraulics	350	0.75	1	263	18	4,725	480	2,268,000
Booster Pump	425	0.90	1	383	18	6,885	90	619,650
Tug Boat	330	0.10	1	33	2	66	350	23,100
Work Boat	50	0.10	1	5	2	10	480	4,800
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	2	NA	480	960
<b>Access Road Construction &amp; Maintenance</b>								
Grader	165	0.40	1	66	3	198	5	990
Water Truck	400	0.25	1	100	3	300	5	1,500
Dump Truck - 14 CY	400	0.25	1	100	3	300	5	1,500
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	1	NA	5	5
<b>Demobilize/Dredge &amp; Piping</b>								
Boom Truck - 15 Ton	300	0.50	1	150	7	1,050	4	4,200
Forklift	65	0.50	1	33	7	228	4	910
Lattice Boom Crane	345	0.35	1	121	7	845	4	3,381

Table B-2. Emission Source Data for the Laguna Reservoir Maintenance Dredging Project.

<i>Activity/Equipment Type</i>	<i>Hp Rating</i>	<i>Ave. Daily Load Factor</i>	<i>Number Active</i>	<i>Hourly Hp-Hrs</i>	<i>Equip-Hrs/ Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
<b>Vegetation Removal</b>								
Bulldozer - D6	170	0.50	1	85	7	595	14	8,330
Bulldozer - D7	215	0.50	1	108	7	753	14	10,535
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	5	NA	14	70
<b>Construct Launch Ramp</b>								
Water Truck	400	0.25	1	100	7	700	7	4,900
Grader	165	0.40	1	66	7	462	7	3,234
Dump Truck - 14 CY	400	0.25	2	200	7	1,400	7	9,800
<b>Mobilize/Dredge &amp; Piping</b>								
Boom Truck - 15 Ton	300	0.50	1	150	7	1,050	4	4,200
Forklift	65	0.50	1	33	7	228	4	910
Lattice Boom Crane	345	0.35	1	121	7	845	4	3,381
<b>Maintenance Dredging</b>								
Bulldozer - D6	170	0.50	1	85	6	510	150	76,500
Bulldozer - D7	215	0.50	1	108	7	753	16	12,040
Dredge - Pump Engine	950	0.75	1	713	18	12,825	150	1,923,750
Dredge - Generator	125	0.90	1	113	18	2,025	150	303,750
Dredge - Aux. Engine - Hydraulics	350	0.75	1	263	18	4,725	150	708,750
Booster Pump	425	0.90	1	383	18	6,885	60	413,100
Tug Boat	330	0.10	1	33	2	66	75	4,950
Work Boat	50	0.10	1	5	2	10	150	1,500
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	2	NA	150	300
<b>Access Road Construction &amp; Maintenance</b>								
Grader	165	0.40	1	66	3	198	5	990
Water Truck	400	0.25	1	100	3	300	5	1,500
Dump Truck - 14 CY	400	0.25	1	100	3	300	5	1,500
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	1	NA	5	5
<b>Demobilize/Dredge &amp; Piping</b>								
Boom Truck - 15 Ton	300	0.50	1	150	7	1,050	4	4,200
Forklift	65	0.50	1	33	7	228	4	910
Lattice Boom Crane	345	0.35	1	121	7	845	4	3,381

**Construction Schedule (Estimate based on 10/25/05 Schedule)**

<b>Vegetation Removal -</b>	May 1 '06 - June 17 '06
<b>Construct Launch Ramp -</b>	June 17 '06 - June 24 '06
<b>Mobilize Dredge -</b>	June 24 '06 - July 1 '06
<b>Pipe Assembly -</b>	June 24 '06 - July 1 '06
<b>Dredge Operations -</b>	July 3 '06 - April 3 '09 (36 months)
<b>Access Road Construction &amp; Maintenance -</b>	June 17 '06 - June 24 '06 + during dredge operations
<b>Disassemble Piping -</b>	April 3 '09 - April 10 '09
<b>Demobilize Dredge -</b>	April 3 '09 - April 10 '09
<b>Periodic Maintenance Dredging -</b>	Occurs every 4 years.

**Table B-3. Air Emission Factors for the Construction/Operation of the Laguna Reservoir Project.**

Source Type	Fuel Type	Emission Factors (Grams/Horsepower-Hour)						References
		ROG	CO	NOx	SOx	PM	PM10	
Off-Road Equipment - 25-50 Hp	D	2.06	5.92	5.94	0.10	0.70	0.70	(1)
Off-Road Equipment - 51-120 Hp	D	1.11	3.77	7.56	0.10	0.77	0.77	(1)
Off-Road Equipment - 121-175 Hp	D	0.71	3.04	6.94	0.10	0.42	0.42	(1)
Off-Road Equipment - 176-250 Hp	D	0.46	1.48	6.66	0.10	0.23	0.23	(1)
Off-Road Equipment - 251-500 Hp	D	0.37	1.73	5.51	0.10	0.20	0.20	(1)
Off-Road Equipment - 501-750 Hp	D	0.46	1.99	6.66	0.10	0.24	0.24	(1)
Off-Road Equipment - >750 Hp	D	0.47	2.02	6.48	0.10	0.20	0.20	(1)
Dredge Generator - 121-175 Hp - Year 2002	D	0.68	2.70	6.90	0.10	0.38	0.38	(2)
Booster Pump - 251-500 Hp - Year 2000	D	0.32	2.70	6.25	0.10	0.15	0.15	(2)
Dredge Pump Engine - >750 Hp - Year 2002	D	0.68	2.70	8.17	0.10	0.38	0.38	(2)
Fugitive Dust (Lbs/acre-day)	---	---	---	---	---	27.50	13.75	(3)
Off-Road Equipment - Gasoline (Lbs/hp-hr)	G	0.02	0.44	0.01	0.001	0.001	0.001	(4)

Notes: (1) Composite emission factors developed from ARB OFFROAD emissions model (1999) and based on average California equipment fleet age distributions for project year 2005.

(2) Emission factors obtained from the ARB OFFROAD emissions model to match known manufactured years for these equipment.

(3) Units in lbs/acre-day from section 11.2.3 of AP-42 (EPA 1995). Emissions reduced by 75% from uncontrolled levels to represent compliance with SCAQMD Rule 403 - Fugitive Dust.

(4) Emission factors for uncontrolled gasoline engines and units in lbs/Hp-hr from section 3.3 of AP-42 (EPA 1996).

Table B-4. Total Emissions for the Laguna Reservoir Dredging Project.

Activity/Equipment Type	Tons/Activity					
	ROG	CO	NOx	SOx	PM	PM10
<b>Vegetation Removal</b>						
Bulldozer - D6	0.01	0.03	0.06	0.00	0.00	0.00
Bulldozer - D7	0.01	0.02	0.08	0.00	0.00	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	0.96	0.48
<b>Subtotal</b>	<b>0.01</b>	<b>0.05</b>	<b>0.14</b>	<b>0.00</b>	<b>0.97</b>	<b>0.49</b>
<b>Construct Launch Ramp</b>						
Water Truck	0.00	0.01	0.03	0.00	0.00	0.00
Grader	0.00	0.01	0.02	0.00	0.00	0.00
Dump Truck - 14 CY	0.00	0.02	0.06	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.01</b>	<b>0.04</b>	<b>0.11</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Mobilize/ Dredge &amp; Piping</b>						
Boom Truck - 15 Ton	0.00	0.01	0.03	0.00	0.00	0.00
Forklift	0.00	0.00	0.01	0.00	0.00	0.00
Lattice Boom Crane	0.00	0.01	0.02	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.02</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Dredging</b>						
Bulldozer - D6	0.38	1.64	3.74	0.05	0.22	0.22
Dredge - Pump Engine	4.61	18.32	55.44	0.68	2.58	2.58
Dredge - Generator	0.73	2.89	7.39	0.11	0.41	0.41
Dredge - Aux. Engine - Hydraulics	0.93	4.33	13.78	0.25	0.50	0.50
Booster Pump	0.22	1.84	4.27	0.07	0.10	0.10
Tug Boat	0.01	0.04	0.14	0.00	0.01	0.01
Work Boat	0.04	1.05	0.03	0.00	0.00	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	13.20	6.60
<b>Subtotal</b>	<b>6.92</b>	<b>30.12</b>	<b>84.79</b>	<b>1.16</b>	<b>17.02</b>	<b>10.42</b>
<b>Access Road Construction &amp; Maintenance</b>						
Grader	0.00	0.00	0.01	0.00	0.00	0.00
Water Truck	0.00	0.00	0.01	0.00	0.00	0.00
Dump Truck - 14 CY	0.00	0.00	0.01	0.00	0.00	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	0.07	0.03
<b>Subtotal</b>	<b>0.00</b>	<b>0.01</b>	<b>0.03</b>	<b>0.00</b>	<b>0.07</b>	<b>0.04</b>
<b>Demobilize/Dredge &amp; Piping</b>						
Boom Truck - 15 Ton	0.00	0.01	0.03	0.00	0.00	0.00
Forklift	0.00	0.00	0.01	0.00	0.00	0.00
Lattice Boom Crane	0.00	0.01	0.02	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.02</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Table B-5. Annual Emissions for the Laguna Reservoir Maintenance Dredging Project.

Activity/Equipment Type	Tons/Year					
	ROG	CO	NOx	SOx	PM	PM10
<b>Vegetation Removal</b>						
Bulldozer - D6	0.01	0.03	0.06	0.00	0.00	0.00
Bulldozer - D7	0.01	0.02	0.08	0.00	0.00	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	0.96	0.48
<b>Subtotal</b>	<b>0.01</b>	<b>0.05</b>	<b>0.14</b>	<b>0.00</b>	<b>0.97</b>	<b>0.49</b>
<b>Construct Launch Ramp</b>						
Water Truck	0.00	0.01	0.03	0.00	0.00	0.00
Grader	0.00	0.01	0.02	0.00	0.00	0.00
Dump Truck - 14 CY	0.00	0.02	0.06	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.01</b>	<b>0.04</b>	<b>0.11</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Mobilize/ Dredge &amp; Piping</b>						
Boom Truck - 15 Ton	0.00	0.01	0.03	0.00	0.00	0.00
Forklift	0.00	0.00	0.01	0.00	0.00	0.00
Lattice Boom Crane	0.00	0.01	0.02	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.02</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Maintenance Dredging</b>						
Bulldozer - D6	0.06	0.26	0.58	0.01	0.04	0.04
Bulldozer - D7	0.01	0.02	0.09	0.00	0.00	0.00
Dredge - Pump Engine	1.44	5.73	17.32	0.21	0.81	0.81
Dredge - Generator	0.23	0.90	2.31	0.03	0.13	0.13
Dredge - Aux. Engine - Hydraulics	0.29	1.35	4.31	0.08	0.16	0.16
Booster Pump	0.15	1.23	2.85	0.05	0.07	0.07
Tug Boat	0.00	0.01	0.03	0.00	0.00	0.00
Work Boat	0.01	0.33	0.01	0.00	0.00	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	4.13	2.06
<b>Subtotal</b>	<b>2.19</b>	<b>9.83</b>	<b>27.50</b>	<b>0.38</b>	<b>5.32</b>	<b>3.26</b>
<b>Access Road Construction &amp; Maintenance</b>						
Grader	0.00	0.00	0.01	0.00	0.00	0.00
Water Truck	0.00	0.00	0.01	0.00	0.00	0.00
Dump Truck - 14 CY	0.00	0.00	0.01	0.00	0.00	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	0.07	0.03
<b>Subtotal</b>	<b>0.00</b>	<b>0.01</b>	<b>0.03</b>	<b>0.00</b>	<b>0.07</b>	<b>0.04</b>
<b>Demobilize/Dredge &amp; Piping</b>						
Boom Truck - 15 Ton	0.00	0.01	0.03	0.00	0.00	0.00
Forklift	0.00	0.00	0.01	0.00	0.00	0.00
Lattice Boom Crane	0.00	0.01	0.02	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.02</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total Peak Annual Emissions (1)</b>	<b>2.22</b>	<b>9.96</b>	<b>27.89</b>	<b>0.39</b>	<b>6.37</b>	<b>3.79</b>
<b>NEPA Significance Thresholds</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Note: (1) The peak annual emissions period would include all activities.

Table B-6. Peak Annual Emissions for the Laguna Reservoir Dredging Project.

Activity/Equipment Type	Tons/Year					
	ROG	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM	PM <sub>10</sub>
<b>Dredging</b>						
Bulldozer - D6	0.19	0.82	1.87	0.03	0.11	0.11
Dredge - Pump Engine	2.31	9.16	27.72	0.34	1.29	1.29
Dredge - Generator	0.36	1.45	3.70	0.05	0.20	0.20
Dredge - Aux. Engine - Hydraulics	0.46	2.16	6.89	0.13	0.25	0.25
Booster Pump	0.11	0.92	2.13	0.03	0.05	0.05
Tug Boat	0.00	0.02	0.07	0.00	0.00	0.00
Work Boat	0.02	0.53	0.01	0.00	0.00	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	6.60	3.30
<b>Subtotal</b>	<b>3.46</b>	<b>15.06</b>	<b>42.39</b>	<b>0.58</b>	<b>8.51</b>	<b>5.21</b>
<b>Demobilize/Dredge &amp; Piping</b>						
Boom Truck - 15 Ton	0.00	0.01	0.03	0.00	0.00	0.00
Forklift	0.00	0.00	0.01	0.00	0.00	0.00
Lattice Boom Crane	0.00	0.01	0.02	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.02</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total Peak Annual Emissions (1)</b>	<b>3.46</b>	<b>15.08</b>	<b>42.45</b>	<b>0.58</b>	<b>8.51</b>	<b>5.21</b>
<b>NEPA Significance Thresholds</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Note: (1) The peak annual emissions period only would include dredging and demobilizing/dredge and piping activities.

Table B-7. Conformity Emission Source Data for the Laguna Reservoir Dredging Project.

<i>Activity/Equipment Type</i>	<i>Hp Rating</i>	<i>Ave. Daily Load Factor</i>	<i>Number Active</i>	<i>Hourly Hp-Hrs</i>	<i>Equip-Hrs/Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
<b>Vegetation Removal</b>								
Bulldozer - D6	170	0.50	1	85	7	595	14	8,330
Bulldozer - D7	215	0.50	1	108	7	753	14	10,535
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	5	NA	14	70
<b>Construct Launch Ramp</b>								
Water Truck	400	0.25	1	100	7	700	7	4,900
Grader	165	0.40	1	66	7	462	7	3,234
Dump Truck - 14 CY	400	0.25	2	200	7	1,400	7	9,800
<b>Mobilize/Dredge &amp; Piping</b>								
Boom Truck - 15 Ton	300	0.50	1	150	7	1,050	4	4,200
Forklift	65	0.50	1	33	7	228	4	910
Lattice Boom Crane	345	0.35	1	121	7	845	4	3,381
<b>Dredge Operations</b>								
Bulldozer - D6	170	0.50	2	170	6	1,020	480	489,600
Dredge - Pump Engine	950	0.75	1	713	18	12,825	480	6,156,000
Dredge - Generator	125	0.90	1	113	18	2,025	480	972,000
Dredge - Aux. Engine - Hydraulics	350	0.75	1	263	18	4,725	480	2,268,000
Booster Pump (1)	Not Applicable							
Tug Boat	330	0.10	1	33	2	66	350	23,100
Work Boat	50	0.10	1	5	2	10	480	4,800
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	2	NA	480	960
<b>Access Road Construction &amp; Maintenance</b>								
Grader	165	0.40	1	66	3	198	5	990
Water Truck	400	0.25	1	100	3	300	5	1,500
Dump Truck - 14 CY	400	0.25	1	100	3	300	5	1,500
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	1	NA	5	5
<b>Demobilize/Dredge &amp; Piping</b>								
Boom Truck - 15 Ton	300	0.50	1	150	7	1,050	4	4,200
Forklift	65	0.50	1	33	7	228	4	910
Lattice Boom Crane	345	0.35	1	121	7	845	4	3,381

Note: (1) The booster pump requires an ICAPCD air permit and therefore is exempt from the Conformity Analysis.

Table B-8. Conformity Emission Source Data for the Laguna Reservoir Maintenance Dredging Project.

<i>Activity/Equipment Type</i>	<i>Hp Rating</i>	<i>Ave. Daily Load Factor</i>	<i>Number Active</i>	<i>Hourly Hp-Hrs</i>	<i>Equip-Hrs/Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
<b>Vegetation Removal</b>								
Bulldozer - D6	170	0.50	1	85	7	595	14	8,330
Bulldozer - D7	215	0.50	1	108	7	753	14	10,535
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	5	NA	14	70
<b>Construct Launch Ramp</b>								
Water Truck	400	0.25	1	100	7	700	7	4,900
Grader	165	0.40	1	66	7	462	7	3,234
Dump Truck - 14 CY	400	0.25	2	200	7	1,400	7	9,800
<b>Mobilize/Dredge &amp; Piping</b>								
Boom Truck - 15 Ton	300	0.50	1	150	7	1,050	4	4,200
Forklift	65	0.50	1	33	7	228	4	910
Lattice Boom Crane	345	0.35	1	121	7	845	4	3,381
<b>Maintenance Dredging</b>								
Bulldozer - D6	170	0.50	1	85	6	510	150	76,500
Bulldozer - D7	215	0.50	1	108	7	753	16	12,040
Dredge - Pump Engine	950	0.75	1	713	18	12,825	150	1,923,750
Dredge - Generator	125	0.90	1	113	18	2,025	150	303,750
Dredge - Aux. Engine - Hydraulics	350	0.75	1	263	18	4,725	150	708,750
Booster Pump (1)	Not Applicable							
Tug Boat	330	0.10	1	33	2	66	75	4,950
Work Boat	50	0.10	1	5	2	10	150	1,500
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	2	NA	150	300
<b>Access Road Construction &amp; Maintenance</b>								
Grader	165	0.40	1	66	3	198	5	990
Water Truck	400	0.25	1	100	3	300	5	1,500
Dump Truck - 14 CY	400	0.25	1	100	3	300	5	1,500
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	1	NA	5	5
<b>Demobilize/Dredge &amp; Piping</b>								
Boom Truck - 15 Ton	300	0.50	1	150	7	1,050	4	4,200
Forklift	65	0.50	1	33	7	228	4	910
Lattice Boom Crane	345	0.35	1	121	7	845	4	3,381

Note: (1) The booster pump requires an ICAPCD air permit and therefore is exempt from the Conformity Analysis.

**Table B-9. Conformity Emissions for the Laguna Reservoir Dredging Project (Peak Year).**

<i>Activity/Equipment Type</i>	<i>Tons/Year</i>		
	<i>ROG</i>	<i>NOx</i>	<i>PM10</i>
<b>Dredging</b>			
Bulldozer - D6	0.19	1.87	0.11
Dredge - Pump Engine	2.31	27.72	1.29
Dredge - Generator	0.36	3.70	0.20
Dredge - Aux. Engine - Hydraulics	0.46	6.89	0.25
Tug Boat	0.00	0.07	0.00
Work Boat	0.02	0.01	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	3.30
<b>Subtotal</b>	<b>3.35</b>	<b>40.26</b>	<b>5.16</b>
<b>Demobilize/ Dredge &amp; Piping</b>			
Boom Truck - 15 Ton	0.00	0.03	0.00
Forklift	0.00	0.01	0.00
Lattice Boom Crane	0.00	0.02	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.05</b>	<b>0.00</b>
<b>Total Emissions</b>	<b>3.36</b>	<b>40.31</b>	<b>5.16</b>
<b>Conformity Thresholds</b>	<b>100</b>	<b>100</b>	<b>100</b>

Note: (1) The booster pump requires an ICAPCD air permit and therefore is exempt from the Conformity Analysis.

Table B-10. Conformity Emissions for the Laguna Reservoir Maintenance Dredging Project.

Activity/Equipment Type	Tons/Year		
	ROG	NOx	PM10
<b>Vegetation Removal</b>			
Bulldozer - D6	0.01	0.06	0.00
Bulldozer - D7	0.01	0.08	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.48
<b>Subtotal</b>	<b>0.01</b>	<b>0.14</b>	<b>0.49</b>
<b>Construct Launch Ramp</b>			
Water Truck	0.00	0.03	0.00
Grader	0.00	0.02	0.00
Dump Truck - 14 CY	0.00	0.06	0.00
<b>Subtotal</b>	<b>0.01</b>	<b>0.11</b>	<b>0.00</b>
<b>Mobilize/ Dredge &amp; Piping</b>			
Boom Truck - 15 Ton	0.00	0.03	0.00
Forklift	0.00	0.01	0.00
Lattice Boom Crane	0.00	0.02	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.05</b>	<b>0.00</b>
<b>Maintenance Dredging</b>			
Bulldozer - D6	0.06	0.58	0.04
Bulldozer - D7	0.01	0.09	0.00
Dredge - Pump Engine	1.44	17.32	0.81
Dredge - Generator	0.23	2.31	0.13
Dredge - Aux. Engine - Hydraulics	0.29	4.31	0.16
Tug Boat	0.00	0.03	0.00
Work Boat	0.01	0.01	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	2.06
<b>Subtotal</b>	<b>2.04</b>	<b>24.65</b>	<b>3.19</b>
<b>Access Road Construction &amp; Maintenance</b>			
Grader	0.00	0.01	0.00
Water Truck	0.00	0.01	0.00
Dump Truck - 14 CY	0.00	0.01	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.03
<b>Subtotal</b>	<b>0.00</b>	<b>0.03</b>	<b>0.04</b>
<b>Demobilize/Dredge &amp; Piping</b>			
Boom Truck - 15 Ton	0.00	0.03	0.00
Forklift	0.00	0.01	0.00
Lattice Boom Crane	0.00	0.02	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.05</b>	<b>0.00</b>
<b>Total Emissions</b>	<b>2.07</b>	<b>25.04</b>	<b>3.72</b>
<b>Conformity Thresholds</b>	<b>100</b>	<b>100</b>	<b>100</b>

Note: (1) The booster pump requires an ICAPCD air permit and therefore is exempt from the Conformity Analysis.

Table B-11. Emission Source Data for the Laguna Reservoir Dredging Project (Alternative 2).

<i>Activity/Equipment Type</i>	<i>Hp Rating</i>	<i>Ave. Daily Load Factor</i>	<i>Number Active</i>	<i>Hourly Hp-Hrs</i>	<i>Equip-Hrs/ Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
<b>Vegetation Removal</b>								
Bulldozer - D6	170	0.50	1	85	7	595	30	17,850
Bulldozer - D7	215	0.50	1	108	7	753	30	22,575
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	5	NA	30	150
<b>Construct Launch Ramp</b>								
Water Truck	400	0.25	1	100	7	700	7	4,900
Grader	165	0.40	1	66	7	462	7	3,234
Dump Truck - 14 CY	400	0.25	2	200	7	1,400	7	9,800
<b>Mobilize/Dredge &amp; Piping</b>								
Boom Truck - 15 Ton	300	0.50	1	150	7	1,050	4	4,200
Forklift	65	0.50	1	33	7	228	4	910
Lattice Boom Crane	345	0.35	1	121	7	845	4	3,381
<b>Dredging</b>								
Bulldozer - D6	170	0.50	2	170	6	1,020	998	1,017,960
Dredge - Pump Engine	950	0.75	1	713	18	12,825	998	12,799,350
Dredge - Generator	125	0.90	1	113	18	2,025	998	2,020,950
Dredge - Aux. Engine - Hydraulics	350	0.75	1	263	18	4,725	998	4,715,550
Booster Pump	425	0.90	1	383	18	6,885	186	1,280,610
Tug Boat	330	0.10	1	33	2	66	725	47,850
Work Boat	50	0.10	1	5	2	10	998	9,980
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	2	NA	998	1,996
<b>Access Road Construction &amp; Maintenance</b>								
Grader	165	0.40	1	66	3	198	5	990
Water Truck	400	0.25	1	100	3	300	5	1,500
Dump Truck - 14 CY	400	0.25	1	100	3	300	5	1,500
Fugitive Dust - Acres disturbed/day and total days	NA	NA	NA	NA	1	NA	5	5
<b>Demobilize/Dredge &amp; Piping</b>								
Boom Truck - 15 Ton	300	0.50	1	150	7	1,050	4	4,200
Forklift	65	0.50	1	33	7	228	4	910
Lattice Boom Crane	345	0.35	1	121	7	845	4	3,381

Table B-12. Total Emissions for the Laguna Reservoir Dredging Project (Alternative 2).

Activity/Equipment Type	Tons/Activity					
	ROG	CO	NOx	SOx	PM	PM10
<b>Vegetation Removal</b>						
Bulldozer - D6	0.01	0.06	0.14	0.00	0.01	0.01
Bulldozer - D7	0.01	0.04	0.17	0.00	0.01	0.01
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	2.06	1.03
<b>Subtotal</b>	<b>0.03</b>	<b>0.10</b>	<b>0.30</b>	<b>0.00</b>	<b>2.08</b>	<b>1.05</b>
<b>Construct Launch Ramp</b>						
Water Truck	0.00	0.01	0.03	0.00	0.00	0.00
Grader	0.00	0.01	0.02	0.00	0.00	0.00
Dump Truck - 14 CY	0.00	0.02	0.06	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.01</b>	<b>0.04</b>	<b>0.11</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Mobilize/ Dredge &amp; Piping</b>						
Boom Truck - 15 Ton	0.00	0.01	0.03	0.00	0.00	0.00
Forklift	0.00	0.00	0.01	0.00	0.00	0.00
Lattice Boom Crane	0.00	0.01	0.02	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.02</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Dredging</b>						
Bulldozer - D6	0.80	3.41	7.78	0.11	0.47	0.47
Dredge - Pump Engine	9.59	38.09	115.27	1.41	5.36	5.36
Dredge - Generator	1.51	6.01	15.37	0.22	0.85	0.85
Dredge - Aux. Engine - Hydraulics	1.93	8.99	28.64	0.52	1.03	1.03
Booster Pump	0.45	3.81	8.82	0.14	0.21	0.21
Tug Boat	0.02	0.09	0.29	0.01	0.01	0.01
Work Boat	0.08	2.19	0.05	0.00	0.00	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	27.45	13.72
<b>Subtotal</b>	<b>14.39</b>	<b>62.61</b>	<b>176.23</b>	<b>2.42</b>	<b>35.38</b>	<b>21.66</b>
<b>Access Road Construction &amp; Maintenance</b>						
Grader	0.00	0.00	0.01	0.00	0.00	0.00
Water Truck	0.00	0.00	0.01	0.00	0.00	0.00
Dump Truck - 14 CY	0.00	0.00	0.01	0.00	0.00	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	0.07	0.03
<b>Subtotal</b>	<b>0.00</b>	<b>0.01</b>	<b>0.03</b>	<b>0.00</b>	<b>0.07</b>	<b>0.04</b>
<b>Demobilize/Dredge &amp; Piping</b>						
Boom Truck - 15 Ton	0.00	0.01	0.03	0.00	0.00	0.00
Forklift	0.00	0.00	0.01	0.00	0.00	0.00
Lattice Boom Crane	0.00	0.01	0.02	0.00	0.00	0.00
<b>Subtotal</b>	<b>0.00</b>	<b>0.02</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Table B-13. Peak Annual Emissions for the Laguna Reservoir Dredging Project (Alternative 2).

Activity/Equipment Type (1)	Tons/Year					
	ROG	CO	NOx	SOx	PM	PM10
<b>Dredging</b>						
Bulldozer - D6	0.27	1.14	2.59	0.04	0.16	0.16
Dredge - Pump Engine	3.20	12.70	38.42	0.47	1.79	1.79
Dredge - Generator	0.50	2.00	5.12	0.07	0.28	0.28
Dredge - Aux. Engine - Hydraulics	0.64	3.00	9.55	0.17	0.34	0.34
Booster Pump	0.15	1.27	2.94	0.05	0.07	0.07
Tug Boat	0.01	0.03	0.10	0.00	0.00	0.00
Work Boat	0.03	0.73	0.02	0.00	0.00	0.00
Fugitive Dust - Acres disturbed/day and total days	0.00	0.00	0.00	0.00	9.15	4.57
<b>Subtotal</b>	<b>4.80</b>	<b>20.87</b>	<b>58.74</b>	<b>0.81</b>	<b>11.79</b>	<b>7.22</b>
<b>Total Peak Annual Emissions (1)</b>	<b>4.80</b>	<b>20.87</b>	<b>58.74</b>	<b>0.81</b>	<b>11.79</b>	<b>7.22</b>
<b>NEPA Significance Thresholds</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>



## **Appendix C**

---

### **Correspondence**



SHPD- 2005 - 2245 (26321)



United States Department of the Interior

**BUREAU OF RECLAMATION**  
Yuma Area Office  
7301 Calle Agua Salada  
Yuma, Arizona 85364

IN REPLY REFER TO:

LC-2632  
ENV-3.00

NOV 22 2005

CERTIFIED - RETURN RECEIPT REQUESTED (7004 1160 0002 5649 0955)

Mr. James Garrison  
State Historic Preservation Officer  
Arizona State Parks  
1300 West Washington  
Phoenix, AZ 85007

RECEIVED

NOV 23 2005

ARIZONA 00 00 0000/S.H.P.0

Subject: Laguna Dam Restoration Project Cultural Inventory -  
Finding of No Historic Properties Affected

Dear Mr. Garrison:

Reclamation has plans to dredge approximately two million cubic yards of accumulated silt from a 150-acre area behind Laguna Dam on Reclamation and Reservation land. We initiated consultation with your office in October 2005 (letter enclosed). ASM Affiliates have conducted a cultural resources inventory over the accessible portions of the project area. A representative from the Quechan Tribe (Tribe) accompanied the archaeologist during the fieldwork. The enclosed report, "A Cultural Resources Inventory and Evaluation for the Laguna Dam Restoration Project, Imperial County, California, and Yuma County, Arizona," reports the negative findings. Per 800.4(d)(1), Reclamation requests your concurrence on the issue of No Historic Properties Affected.

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12/1	TB	7200	
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Reclamation will continue to consult with the Tribe and the Fort Yuma Agency of the Bureau of Indian Affairs as we proceed. The Tribe has acknowledged Reclamation's intent remove sediment from adjacent reservation land (see enclosed Project Layout and map with October 12, 2005 letter).

Due to massive accumulations of sediment and dense vegetation, the majority of the project area is considered culturally non-sensitive. We will require an archaeological monitor while dredging near the historic Laguna Dam and along the interface of the flood plain and first mesa. Dredge sediment materials will be removed and deposited in an existing dredge disposal area

known as the Laguna Desilting Site that is located on Reclamation land.

Thank you in advance for reviewing the report and concurring with Reclamation's finding of No Historic Properties Affected. If you have any questions on the methodology, findings, or proposed monitoring, feel free to contact Archeologist Ms. Renee Kolvet by phone at 702-293-8443 or email, [rkolvet@lc.usbr.gov](mailto:rkolvet@lc.usbr.gov). If you have questions on the scope of work, please contact Project Manager, Kim Garvey by phone at 928-343-8227 or email, [kgarvey@lc.usbr.gov](mailto:kgarvey@lc.usbr.gov).

Sincerely,

*Theresa Bialk*  
Cynthia Hoeft, Director,  
Resource Management Office

*Receiv*  
*John Kelly*  
*for SHPO*  
*Dec. 14, 2005*

Enclosures - 3 (Cultural Report, October 12, 2005 SHPO letter, and Project Layout Map)

cc: Mr. Milford Wayne Donaldson  
State Historic Preservation Officer  
Office of Historic Preservation  
California Department of Parks  
and Recreation  
1416 9th Street, Room 1442-7  
Sacramento, CA 95814  
(w/encl)

Mr. Bill Pyott  
Bureau of Indian Affairs  
Fort Yuma Agency  
P.O. Box 11000  
Yuma, AZ 85366  
(w/encl)

Mr. Gary Cantley  
Bureau of Indian Affairs  
Western Regional Office  
P.O. Box 10  
Phoenix, AZ 85001  
(w/encl)



State Historic Preservation Office  
Arizona State Parks  
1300 W. Washington  
Phoenix, Arizona 85007  
[www.azstateparks.com](http://www.azstateparks.com)

**Cynthia Hoeft**  
Director, Resources Management  
Bureau of Reclamation  
Yuma Area Office  
7301 Calle Agua Salada  
Yuma, AZ 85364

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JUL 20 2005  
Yuma Area Office  
Yuma, Arizona

“Managing and Conserving Natural, Cultural, and Recreational Resources”  
888-413-7523

**OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION**

P.O. BOX 942896  
SACRAMENTO, CA 94296-0001  
(916) 653-6624 Fax: (916) 653-9824  
calshpo@ohp.parks.ca.gov

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DATE	INITIALS	CODE
1/23	AK	7000
1/24	PK	7100
1/24	NS	7200
		7210
Classification Project <b>6000131</b>		
Official No. <b>1008</b>		
No.		

January 6, 2006

In Reply Refer To: BUR051017C

Cynthia Hoeft, Director  
Resource Management Office  
U.S. Department of the Interior  
Bureau of Reclamation, Yuma Area Office  
7301 Calle Agua Salada  
Yuma, Arizona 85364

Dear Ms. Hoeft:

Re: Laguna Dam Reclamation Project, Imperial County, California, and Yuma County, Arizona.

You are continuing consultation with me, regarding the above noted undertaking, pursuant to 36 CFR Part 800 (as amended 8-05-04) regulations implementing Section 106 of the National Historic Preservation Act. The Bureau of Reclamation, Yuma Area Office (BUR) is proposing to dredge approximately two million cubic yards of accumulated sediment from a 150 acre area behind Laguna Dam on BUR and Quechan Indian Tribe Reservation lands (Fort Yuma Indian Reservation). The proposed dredging will restore approximate 1,100 acre-feet of storage capacity to the Laguna Dam Reservoir.

The Laguna Dam (completed 1909), which is located within the project Area of Potential Effects (APE), is identified by the BUR as individually eligible for the National Register of Historic Places (NRHP) under criteria A and C. Additionally, it is eligible as a contributing element of the Laguna Dam District, also under criteria A and C, and is a contributing feature of the Yuma Project Irrigation System, also a NRHP eligible district. In addition to your letter of November 22, 2005, you have submitted the following document in support of this undertaking:

- *A Cultural Resources Inventory and Evaluation for the Laguna Dam Restoration Project, Imperial County, California, and Yuma County, Arizona: Laguna Dam Restoration Project* (J. Schaefer and D. Laylander, ASM Affiliates, Inc.: September 2005).

After reviewing your revised letter (submitted via email) of January 4, 2006 and the supporting documentation, I have the following comments.

- 1) I concur that the Area of Potential Effects is appropriate as per 36 CFR Part 800.4(a)(1) and 800.16(d) and that the efforts made to identify historic properties have been appropriate as per 36 CFR § 800.4(b).
- 2) I further concur that a finding of No Adverse Effect with conditions is appropriate pursuant to 36 CFR Part 800.5(b). My concurrence with this finding is predicated on the implementation, as

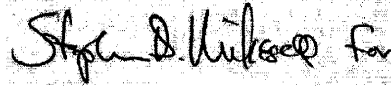
PRJ-13.00-Dam Laguna

proposed by the BUR of proposed monitoring of project activities near the NRHP eligible Laguna Dam; and monitoring, by an archeologist that meets the Secretary of the Interior's professional qualification standards for archeology and a representative of the Quechan Indian Tribe (if so requested by the Tribe) of project activities along the interface of the flood plain and first mesa (i.e., boundary of silted basin). Any discoveries will be treated in accordance with 36 CFR Part 800.13.

3) Be advised that under certain circumstances, such as unanticipated discovery or a change in project description, the BUR may have additional future responsibilities for this undertaking under 36 CFR Part 800.

Thank you for seeking my comments and for considering historic properties in planning your project. If you require further information, please contact William Soule at phone 916-654-4614 or email [wsoule@parks.ca.gov](mailto:wsoule@parks.ca.gov).

Sincerely,

A handwritten signature in dark ink, appearing to read "Stephen D. Milford", followed by the word "for" in a smaller, less distinct script.

Milford Wayne Donaldson, FAIA  
State Historic Preservation Officer



**QUECHAN INDIAN TRIBE**  
***Ft. Yuma Indian Reservation***

P.O. Box 1899  
Yuma, Arizona 85366-1899  
Phone (760) 572-0213  
Fax (760) 572-2102

February 10, 2006

Jim Cherry, Area Manager  
Yuma Area Office  
7301 Called Ague Salad  
Yuma, AZ 85364

Subject: Proposed Laguna Dam Restoration Project

Dear Mr. Cherry:

The Quechan Tribe (Tribe) appreciates the opportunity to have accompanied Reclamation's Archeologist during their recent Cultural Resource work above Laguna Dam (Dam) in support of this proposed project. We do look forward to receiving a copy of their report and regarding this initiative our Tribe would also like to provide the following comments.

Our Tribe supports this initiative and feels it's a sound environmental enhancement project for the Southwest. Anyway to save water benefits us all. Additionally, we'd like to see, once Reclamation's dredge is in that area, if capacity above the Dam could be improved to handle additional water storage space from the toe of the weir by re-creating the channel that use to be there. To that end, Reclamation would have to dredge along the weir's toe between the California and Arizona abutments and cut a channel wide enough to allow boats to pass safely.

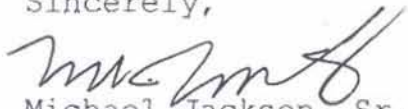
That area is almost a mile in-length and many years ago it was wide open and a popular recreation spot, with a boat ramps on both side above the dam. The 1982 flood releases on the Colorado River helped fill that area with sediment and the old channel is now choked-off and been replaced by a lot of non-native vegetation.

The Tribe would also like to suggest further area enhancements above and below the Dam:

- 1) Removing all non-native vegetation and plant native trees in there place.
- 2) Open the sediment choked backwaters below the Dam, to include the main channel. That would not only help with water storage but improve the area groundwater table too.
- 3) Installing picnic tables, armadas, bathrooms and barbecue grills similar to what was there prior to the controlled flood 1983.

Finally, again, the Tribe appreciates the opportunity to review and comment on Reclamation project plans and looks forward to working with you as partner in the future. In closing, please keep me posted on any Centennial plans your agency may have for this structure.

Sincerely,



Michael Jackson, Sr.  
President



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